Special Study

Juniata and Western Divisions

Pennsylvania Main Line Canal

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Special Study

August 1992

by
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Pennsylvania Main Line Canal

United States Department of the Interior • National Park Service

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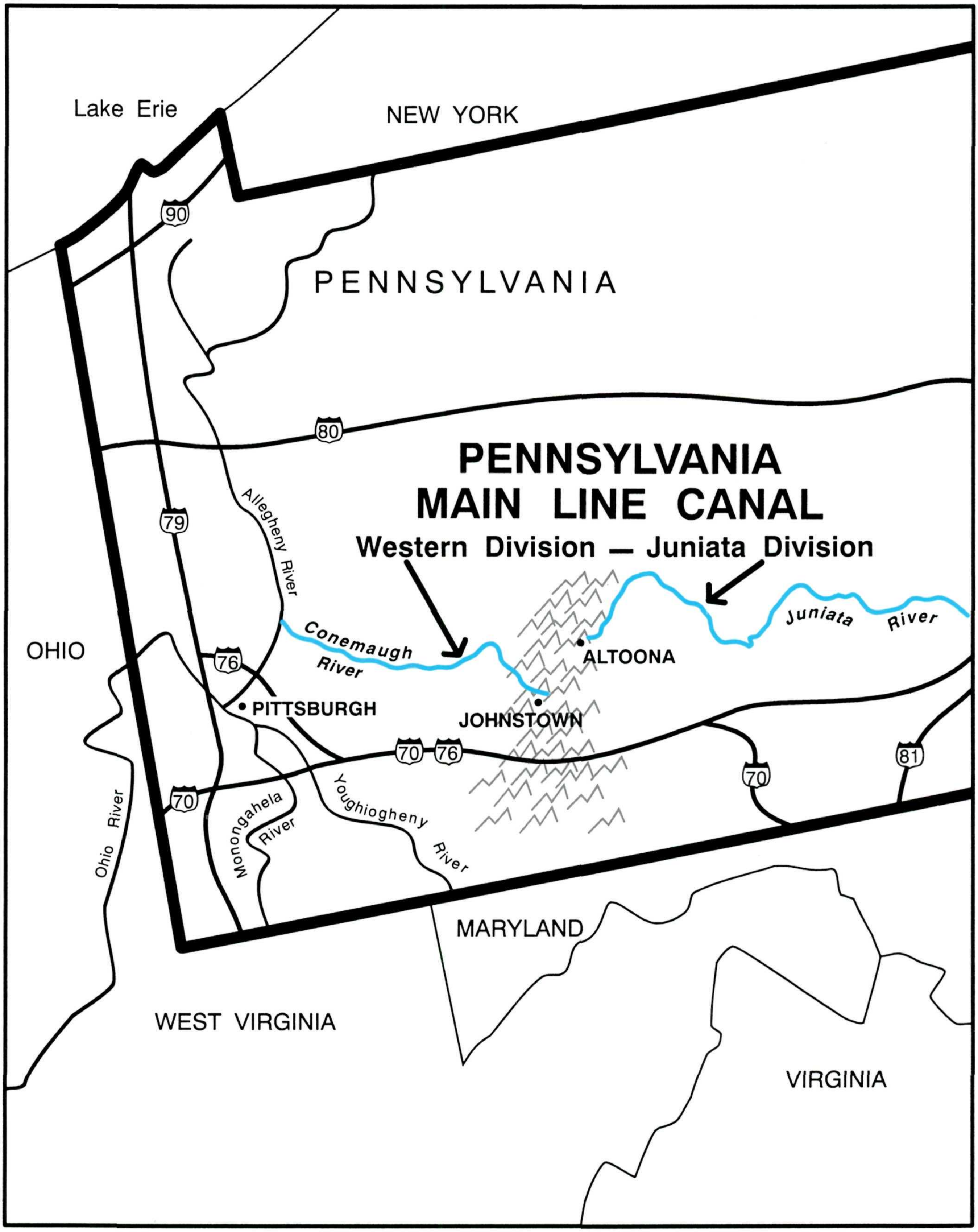

Location

Pennsylvania Main Line Canal

United States Department Of The Interior / National Park Service

DSC / February '93 / 957 / 20053

North

Not To Scale

CHAPTER I. AN OVERVIEW OF THE JUNIATA AND WESTERN DIVISIONS OF THE PENNSYLVANIA MAIN LINE CANAL

BACKGROUND

During the American colonial period several towns such as Boston, New York, Philadelphia, and Baltimore developed into main trading ports. Merchants in those locations prospered. At first their main domestic trading areas were nearby, but gradually these sources of trade extended over ever greater distance. By the time of the American Revolution, a sufficiently large number of people had moved westward to warrant the extension of trade routes farther and farther inland. Consequently, competition arose among these port city merchants to capture more western trade, because their prosperity depended upon the amount of commerce they could attract to their home port. Transportation improvements were required to facilitate this trade. As a result, soon after the United States won its independence from Great Britain, merchants of the northeastern ports began to focus on turnpike construction. One of these first roads was completed between Philadelphia and Lancaster, Pennsylvania in 1794. Another, which ultimately became the National Road, started in 1811 with federal aid. Over 4,000 turnpike miles had been built before the boom ended in the early 1820s.

As the turnpike era ebbed, canal construction came to the fore. Merchants saw this new form of transportation as superior to land travel. The success of the Erie Canal, which connected Albany, New York on the Hudson River to Buffalo on Lake Erie and thus New York City to Albany via the Hudson by October 1825, stimulated other work. A number of canals which provided access to tidewater ports soon followed. The Pennsylvania Main Line Canal and Railroad system was among the more important of these waterways chartered in the 1820s.

EARLY PENNSYLVANIA CANAL PROPOSALS

The earliest suggestion for the development of a water route to western Pennsylvania was advanced before the American Revolution. This proposal in 1760 called for a Juniata-Allegheny passage. Nothing more, however, was heard of it until 1786. At that point, a debate began on the desire for a canal to cross the state. The discussion reached sufficient magnitude by the fall of 1790 that one promoter, Daniel McClay, began to look for a water route from the mouth of Stony Creek (Johnstown) to Poplar Run on the Franktown branch of the Juniata River. In 1791, based upon his survey, a committee in the state legislature recommended that the Juniata, Conemaugh, and Kiskiminetas Rivers be made navigable and that a portage road be built over the Allegheny Mountains. The suggestions were not taken seriously, however, until New York began to build the Erie Canal.[1]

After 1791 thoughts in Pennsylvania of a canal languished until 1813. At that time David Reid and James Clarke brought a canal proposal before the state legislature, but it did not receive favorable attention. When the state of New York began construction on the Erie Canal in 1817, a number of newspapers and civil leaders in Pennsylvania began to advocate a state-owned canal system for their state. This movement was led by men from Pittsburgh who appealed for support from Philadelphia merchants. Even though it meant an increase in business, the Philadelphia merchants hesitated to lend their voices in support. State government officials wavered, as well, when it came to committing the state to such a project. It was viewed as too costly. Pennsylvania canal proponents could not nudge the state into action, so they took another tack in 1823 when, by that year, large sections of the Erie Canal opened. Reports circulated about the rapid development of the area through which the Erie Canal ran and the large toll revenues derived from the traffic. As a result, Pennsylvania canal supporters sent delegates to attend a canal convention in Washington, D.C. on November 6, 1823. Although these men sought federal aid for canal construction, they did not succeed. No federal money was made available for a state canal system. It became clear that, if a canal were to be built, the state government would have to build it.[2]

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1. Julius Rubin, "Canal or Railroad?" Imitation and Innovation in the Response to the Erie Canal in Philadelphia, Baltimore, and Boston," vol. 51, part 7 of *Transactions of the American Philosophical Society* (Philadelphia: The American Philosophical Society, 1961), 19; Earl J. Heydinger, "Comprehensive History of the Pennsylvania Canal System, with Particular Attention to the Allegheny Portage Railroad, Portion: Plane #1, Staple Bend Tunnel and Long Level," (June 1966), IV:1-2, typescript in the Allegheny Portage Railroad National Historic Site library; Archer Butler Hulbert, *The Great American Canals: The Chesapeake and Ohio Canal and the Pennsylvania Canal* (Cleveland, Ohio: The Arthur H. Clark Co., 1904) 170.

2. Thomas S. Reid, "Progressive Historian of Western Pennsylvania," *Indiana Times* (Pennsylvania), March 1, 1882; Alvard L. Bishop, "Corrupt Practices Connected with the Building and Operation of the State Works of Pennsylvania," *Yale Review* 15(February 1907), 391; Robert McCullough and Walter Leuba, *The Pennsylvania Main Line Canal* (York, Pa.: The American Canal and Transportation Center, 1976), 18.

Although Pennsylvanians failed to attract federal aid during the November 1823 convention, their efforts began to bear fruit in their state assembly. A mainline canal bill, which had been introduced in the legislature in 1823, received a favorable report by that body in December of that year. It became law on March 27, 1824. This act provided for a three-man commission under whose direction a canal route would be explored between the Susquehanna and Allegheny Rivers. With a limited deadline the commission concentrated on finding a method by which the sources of the Juniata and Comemaugh Rivers could be connected, since they felt that these rivers were the logical route for a canal. All did not function smoothly, however, for one commissioner disagreed with the findings of the other two men. As a result, two commissioners, James Clarke and Jacob Holgate, filed a report with the legislature on February 2, 1825 which strongly recommended a route along the Susquehanna and Juniata Rivers in the east and the Conemaugh, Kiskiminetas, and Allegheny Rivers in the west. Charles Trcziyulny, the third commissioner, soon followed with a minority report in which he doubted the wisdom of using the Juniata Route.[3]

In the meantime a group composed principally of Philadelphia merchants organized the Pennsylvania Society for the Promotion of Internal Improvements in the Commonwealth in late 1824. Led by Matthew Carey, this organization espoused a railroad to connect Philadelphia with Pittsburgh. In their zeal to develop a railroad, the group helped to organize an Internal Improvement Convention which met at Harrisburg from August 4 to 6, 1825. The preponderance of the delegates, however, favored a canal. Although the railroad proponents continued to press their position, they lost their impetus when the chief railroad exponent, Matthew Carey, switched to favor a canal.[4]

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[3] Rubin, "Canal or Railroad?" 20-21; William Bender Wilson, "The Evolution, Decadence and Abandonment of the Allegheny Portage Railroad," in *Annual Report of the Secretary of Internal Affairs of the Commonwealth of Pennsylvania for the Year Ending June 30, 1899,* Part IV: *Railroad, Canal, Navigation, Telegraph and Telephone Companies* (Philadelphia: Wm. Stanley Ray, 1900), xli-xliii; *Tenth Census of the United States: Transportation* (Washington, D.C.: Government Printing Office, 1883), 736-737; Harry A. Jacobs, "The Old Juniata Canal and Portage Railroad," in George A. Wolf, ed., *Blair County's First Hundred Years, 1846-1946* (Altoona, Pa.: The Mirror Press, 1945), 159; George Johnson, Earl Giles, and Ralph Michaels, "Johnstown and the Pennsylvania Canal," in Karl Berger, ed., *Johnstown: The Story of a Unique Valley* (Johnstown, Pa.: Johnstown Flood Museum, 1985), 215; Tarring S. Davis, *A History of Blair County,* vol. 1 (Harrisburg, Pa.: National Historical Association, Inc., 1931), 48; Hubertis M. Cummings, *Pennsylvania Board of Canal Commissioner's Records* (Harrisburg, Pa.: Bureau of Labor Records, 1959), 1; Howard M. Jenkins, ed., *Pennsylvania: Colonial and Federal,* vol. 3 (Philadelphia: Pennsylvania Historical Publishing Assn., 1903), 279; McCullough and Leuba, *The Pennsylvania Main Line Canal,* 18; J. E. Watkins, "The Portage Railroad and the New Portage Railroad," 147, unpublished manuscript (1896) in the Allegheny Portage Railroad National Historic Site library; Thomas A. Logue, "History of Old Portage Railroad," *Altoona Mirror* (Pennsylvania), February 13, 1939; Thomas J. Chapman, *The Valley of the Conemaugh* (Altoona, Pa.: McCrum & Dern, 1865), 79; Elizabeth Miller Pratt, "The Building of the Pennsylvania Canal, 1826-1834," M.A. Thesis, Columbia University, 1949.

On November 4, 1825, soon after the canal proponents celebrated their victory at the Internal Improvements Convention, the Erie Canal was completed. This situation brought dire circumstances to Philadelphia. Already hard hit by the completion of the National Road, much of the merchants' remaining commerce was taken by New York City. Trade with Pittsburgh and the west almost ended. To make matters worse, many Philadelphia financial institutions entered bankruptcy.[5]

MAIN LINE CANAL CONSTRUCTION

The 1824 Canal Commission and its dual reports proved to be unpopular throughout the state, since only one canal route was examined. As a result, petitions were sent to the legislature from various areas of the state requesting the consideration of other routes. Diverse business and agricultural interests throughout much of the state saw the practical benefit to their individual communities if the canal passed through their area. In response, the state legislature passed another canal bill which became law on April 11, 1825. It called for the establishment of a five-member Board of Canal Commissioners. Organized in July, this board was charged with examining seven possible canal routes between the east and west areas of the state and selecting one route for construction.[6]

Although the five-member canal board had not made its report by the time the state legislature met in January 1826, the desire to begin canal construction led that body to produce a canal construction bill. It became law on February 25, 1826. This act committed the state to build a "Pennsylvania Canal" which would connect Philadelphia with Pittsburgh. It authorized the construction of sections at each end, but this act did not provide for a route in the middle part. The legislative members thought that the authorized sections would be of use even if they were never connected in the central area.[7]

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[4] McCullough and Leuba, *The Pennsylvania Main Line Canal,* 18; Rubin, "Canal or Railroad?" 25-29; Logue, "History of Old Portage Railroad;" Chapman, *The Valley of the Conemaugh,* 79.

[5] McCullough and Leuba, *The Pennsylvania Main Line Canal,* 19.

[6] Cummings, *Pennsylvania Board of Canal Commissioners' Records,* 2; Rubin, "Canal or Railroad?" 25; Wilson, "The Evolution, Decadence and Abandonment of the Allegheny Portage Railroad," xliii; Jenkins, *Pennsylvania: Colonial and Federal,* III:280; Pratt, "The Building of the Pennsylvania Canal, 1826-1834," 25; Hulbert, *The Great American Canals,* 181.

The legislative members' naive belief was that the canal could be financed entirely with borrowed money and that the toll revenue would pay off the debt. It was believed that the canal would be built within six years and involve a $500,000 yearly expenditure. To begin with, however, the legislature approved of borrowing the meager sum of $300,000. By completion the total would be in the millions, all borrowed at a five percent interest rate.[8]

Work began to establish the eastern end of the canal first. On March 10, 1826 William Strickland was employed as an engineer to survey the route of the Eastern division which ran from Middletown along the east side of the Susquehanna River to Duncan's Island at the mouth of the Juniata. Several months later Nathan S. Roberts, who had worked as an engineer on the Erie Canal, began to lay out the Western division from Pittsburgh up the Allegheny River to the mouth of the Kiskiminetas. In an elaborate ceremony on July 4, 1826, Governor George Shulze turned the first spade of earth at Harrisburg.[9]

It was decided to maintain a standard dimension throughout the canal divisions. This consisted of a canal width of forty feet at the top water line, twenty-eight feet width at the bottom and a minimum depth of four feet. The tops of the banks were to be at least two feet above the water line. Inner banks were to have a sixty-seven percent slope. The towpath, which was generally built on the river side of the canal, had to be at least eleven feet wide, while the opposite or berm side had to be at least seven feet wide. As a result, the minimum width of the entire canal was sixty-four feet. All brush and trees had to be grubbed on both sides for at least forty feet from the center. Lift lock dimensions were fifteen feet wide and ninety feet long except on the Eastern division where the width was seventeen feet. A four-foot wide spillway was provided on the uphill side of each lock.[10]

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[7] McCullough and Leuba, *The Pennsylvania Main Line Canal*, 20; *The Main Line of the Pennsylvania State Improvements: Its History, Cost, Revenue, Expenditures, and Present and Prospective Value* (Philadelphia: T. K. and P. G. Collins, Printers, 1855),14; Wilson, "The Evolution, Decadence and Abandonment of the Allegheny Portage Railroad," xliii; *Tenth Census of the United States: Transportation*, 737; Cummings, *Pennsylvania Board of Canal Commissioners' Records*, 2; Jacobs, "The Old Juniata Canal and Portage Railroad," 159; William B. Sipes, *The Pennsylvania Railroad: Its Origins, Construction, Condition, and Connections* (Philadelphia: The Passenger Department, 1875), 6; Pratt, "The Building of the Pennsylvania Canal," 35; Hulbert, *The Great American Canals*, 182.

[8] McCullough and Leuba, *The Pennsylvania Main Line Canal*, 21; *The Main Line of the Pennsylvania State Improvements*, 11; Pratt, "The Building of the Pennsylvania Canal," 23.

[9] McCullough and Leuba, *The Pennsylvania Main Line Canal*, 35; Pratt, "The Building of the Pennsylvania Canal," 39-40.

Although no connecting route between the Eastern and Western canal divisions had been initially established, engineers began to report by late 1826 and early 1827 in favor of the Juniata River route. When the state legislature convened in 1827, legislators heeded this advice. As a result, the canal legislation passed that year and signed by Governor Shulze on April 9, 1827 provided for the initiation of the Juniata division from Duncan's Island on the east to Lewistown. This act also approved the extension of the Western division from the mouth of the Kiskiminetas up that river and the Conemaugh for forty-four miles to a point near Blairsville.[11]

Further extensions of the canal were enacted on March 24, 1828. At that time the Juniata division received authorization to continue from Huntingdon to the highest practicable point which was at Hollidaysburg. On the west side the act provided for an extension from Blairsville to the highest practicable point on the Conemaugh which was at Johnstown. With this authority, the entire length of the main line was located. It consisted of five segments — a 103 mile Western division, a thirty-six mile Allegheny Portage Railroad, a 127 mile Juniata division, a forty-three mile Eastern division, and an eighty-two mile Philadelphia and Columbia Railroad. The Main Line's length covered more than 390 miles.[12]

Canal construction proved to be much more expensive than anticipated. Engineering cost estimates were always well below actual needs. Although large amounts of money were

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10. McCullough and Leuba, *The Pennsylvania Main Line Canal,* 35; Scott D. Heberling and Paul M. Heberling, "Phase II Archaeological Investigation: Mount Union Bypass Project, T. R. 522, L. R. 121, Section 001, Huntingdon County, Pennsylvania" (Prepared for Pennsylvania Department of Transportation District 9-0 and Federal Highway Administration, 1988), 27.

11. *The Main Line of the Pennsylvania State Improvements,* 14; McCullough and Leuba, *The Pennsylvania Main Line Canal,* 22-23; Pratt, "The Building of the Pennsylvania Canal," 44.

12. McCullough and Leuba, *The Pennsylvania Main Line Canal,* 24-25; Heberling and Heberling, "Phase II Archaeological Investigation: Mount Union Bypass," 21; Pratt, "The Building of the Pennsylvania Canal," 51; *The Main Line of the Pennsylvania State Improvements,* 14.

borrowed each year, it was never enough to cover the canal board's expenditures. When the board spent its yearly monetary allotment, it would notify the contractors. These concerns usually continued to construct their segment because they knew that the legislature would provide the necessary funds in its next session. Frequently, however, the Canal Commissioners were careless with the funds, for they awarded contracts to friends or political allies for higher sums than necessary. Contractors, too, took advantage of the lax situation and claimed compensation for more men or animals than worked for them. Thus more money than necessary was expended in canal construction. Few, if any, people were ever prosecuted for cheating the state.[13]

By 1829 two portions of the canal in the Eastern and Western divisions were completed. The introduction of water in these sections permitted their use by canal boats. As a result, tolls were collected for the first time. These tolls were charged on the basis of a ton-mile. Those charges announced in 1829 assessed flour, meat, cheese, beer, salt, and fish, as well as farm products and household goods at the rate of two cents per ton-mile. Pig-iron, and broken castings were levied at one-and-a-half cents with coal and iron ore at one cent, and sand, clay, earth, gravel, bleached ashes, and manure at three-fourths of a cent. The highest rates of four cents were placed on such valuables as furs and pelts. Canal boats which conveyed passengers were charged twenty-five cents per mile or ten cents a mile for the boat and one cent per mile for each passenger over eight years of age, as the owners decided. At the same time the toll for passengers on freight boats was one-half cent for those over twelve years old.[14]

THE JUNIATA DIVISION

The Juniata division was authorized by the state legislature with the Act of April 9, 1827. Work, however, did not begin on the entire division at the same time. The legislature empowered the canal commission to construct only the forty-five miles between Duncan's

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[13] McCullough and Leuba, *The Pennsylvania Main Line Canal*, 27-28; Bishop, "Corrupt Practices Connected with the Building and Operation of the State Works of Pennsylvania," 396, 399, 407-409.

[14] McCullough and Leuba, *The Pennsylvania Main Line Canal*, 89-91; *The Main Line of the Pennsylvania State Improvements*, 15.

Island and Lewistown at first. It was not until the Act of March 24, 1828 that the legislature granted an extension of the canal from Lewistown to the highest expedient and practical point on the Juniata River and thus officially established the line's entire route. Contracts were let to build the segment between Lewistown and Huntingdon in 1828, but the commissioners did not focus on the final canal portion between Huntingdon and Hollidaysburg until June 1, 1831. The completion celebration was held on November 27-28, 1832.[15]

The Juniata division began near the head of Duncan's Island on the Susquehanna River approximately one and a half miles beyond the pool at the end of the Eastern division. It crossed the Susquehanna River by means of a 600-foot long aqueduct to the south bank of the Juniata River. At North's Island, some nineteen miles up that river, the narrow gap through the Tuscarora Mountain dictated that the canal be switched to the north side of the Juniata. Here an eight-foot dam on the river provided the slack water necessary to convey boats across the river. Boats were towed across the river by means of an endless rope ferry. On the east side of Mount Union the canal again crossed to the south side of the river only to return to the north bank four miles west of that village. Above Huntingdon the Juniata River served for slackwater navigation on approximately sixteen of the thirty-eight miles between that borough and Hollidaysburg. Fourteen river dams served to create the slackwater pools. In this same segment the canal switched from river bank to river bank seven times.[16]

Since the course of the Juniata progressed through rough and mountainous country for most of its length, construction of a canal in this area proved difficult. Contracts for work on the canal from Duncan's Island to Lewistown were let in the fall of 1827. These work compacts were allotted on the basis of half-mile segments with separate awards for such features as locks, dams, aqueducts, and bridges. Later contracts for the Lewistown to Huntingdon and the Huntingdon to Hollidaysburg segments followed this same allotment principal. The physical obstacles posed by the rugged country slowed work, but unanticipated high water, disease outbreaks among workers, and inefficient contractors also contributed to the laggardly

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15. McCullough and Leuba, *The Pennsylvania Main Line Canal,* 41,45,47; Heberling and Heberling, "Phase II Archaeological Investigation: Mount Union Bypass," 26-27,31; Pratt, "The Building of the Pennsylvania Canal, 1826-1834," 78.

16. McCullough and Leuba, *The Pennsylvania Main Line Canal,* 41, 46; Heberling and Heberling, "Phase II Archaeological Investigation: Mount Union Bypass," 23.

building pace. In the spring and summer of 1828, as the work progressed in snaillike fashion below Lewistown, the principal assistant engineer Alexander C. Twining with four others surveyed a route between that town and Huntingdon. They recommended the river route which was officially accepted by the canal commissioners on August 20, 1828. The commissioners did not let contracts for the final segment from Huntingdon to Hollidaysburg until the route to Huntingdon was all but complete. As a result, these final contracts were not awarded until June 1, 1831. It was originally intended to have this component terminate at Frankstown where three branches of the Juniata joined to form a natural site for a canal basin. When the landowner rejected a bid to purchase his land, John Blair, a member of the state legislature from Huntingdon County, succeeded in having the canal terminate two miles north in a basin at Hollidaysburg.[17]

Upon completion of the Juniata division in November 1832, the engineers had accomplished an exceedingly difficult task. In its 127.32 mile length, there was a rise of 582 feet three inches. To overcome such a height required eighty-eight locks. As a result, there was an average of one lock every mile and a half. Four of these locks were constructed of cut-stone masonry. Seven locks were built with rubble stone laid in mortar. The other seventy-seven locks were made with wooden frames which were planked watertight with four-inch thick boards. Twenty-five covered aqueducts carried the canal over tributaries and the Juniata. Except for one, these aqueducts were wooden structures supported by stone piers and abutments. They ranged in length from the 600 foot long aqueduct at Duncan's Island to one of twenty-six feet at Newton Hamilton. The one exception was an experimental cast-iron structure which was covered with iron plates. It had a cut stone floor laid in cement. In addition to the aqueducts, forty-two road and over sixty farm bridges crossed the canal. These spans were built of wood with stone abutments. The farm bridges, however, were narrower and of lighter construction. Other canal features included seventeen dams and hundreds of culverts and waste-weirs. Several feeders were built to maintain a water supply. These included a short feeder which led to a small supply basin at Hollidaysburg. The water for this basin came from the Beaverdam and Frankstown branches of the Juniata River. A mile long feeder brought water from the Raystown branch to the canal just below Huntingdon. These sources did not supply sufficient water during dry periods, especially for the Hollidaysburg basin. The problem was not solved until fifteen years later when new feeders were built. In addition to the basins, small harbors were placed at strategic points along the route so that boats could tie up at night and all but passenger boats could put up on Sunday.[18]

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[17] McCullough and Leuba, *The Pennsylvania Main Line Canal,* 44-45; Heberling and Heberling, "Phase II Archaeological Investigation: Mount Union Bypass," 25-31; Pratt, "The Building of the Pennsylvania Canal," 48, 78.

Irish immigrants formed the workforce. They performed hard, back-breaking work at the rate of twelve or more hours per day. Wages usually ran around $11 to $12 per month including tools, board, and drink. In those instances, such as 1828 when sickness and death reduced the workforce, pay would rise to $16 to $18 per month. For this money a man was expected to dig fifteen cubic yards of earth or three feet of canal per day. Most of this work was done by using a pick, shovel, and wheelbarrow. In those areas with a preponderance of rock, blasting was necessary. Other men lined the canal prism with puddle which was a special clay laid to the thickness of two to three feet to prevent any water loss. Although the Irish laborers were often stereotyped as quarrelsome drunks, most of those men did not drink to excess or partake in the general brawls attributed to them. In fact, many of the Irish remained in the area after the canal completion to become landowners and businessmen.[19]

Contractors averaged various construction rates depending upon the type of soil encountered. They usually received ten cents per yard to excavate earth and gravel. Hard pan brought a return of twelve cents per yard, while loose rock earned twenty-five cents, and solid rock averaged thirty-seven to forty-five cents. Embankments were built for thirteen to fourteen cents per cubic yard and puddling was applied for fifteen cents a yard. The cost to construct the Juniata division came to a total of $3,575,966.29.[20]

The formal opening of the Juniata division on November 27, 1832 did not mean that regular traffic could use the canal. It was discovered that a number of contractors did not conform to the construction standards. As a result, some lock walls had to be replaced. In other instances the trunks of aqueducts had to be lengthened because they were so short that

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18. McCullough and Leuba, *The Pennsylvania Main Line Canal*, 43-46, 114; Heberling and Heberling, "Phase II Archaeological Investigation: Mount Union Bypass," 21, 23, 30.

19. McCullough and Leuba, *The Pennsylvania Main Line Canal*, 53-54; Heberling and Heberling, "Phase II Archaeological Investigation: Mount Union Bypass," 27, 28; Pratt, "The Building of the Pennsylvania Canal," 53.

20. McCullough and Leuba, *The Pennsylvania Main Line Canal*, 53-55; *The Main Line of the Pennsylvania State Improvements*, 55; Hulbert, *The Great American Canals*, 211.

embankments washed out at either end. Puddling had to be replaced at a number of culverts where it proved to be so thin that there was excessive water loss. Repairs over the winter of 1832-33 permitted the division's opening to regular traffic in the spring.[21]

THE WESTERN DIVISION

Like the Juniata division, the Western division proved difficult to construct, especially the segments between Pittsburgh and the Kiskiminetas River, and Johnstown to Blairsville. Although the state legislature authorized the first section up the Allegheny River between Pittsburgh and the Kiskiminetas River on February 26, 1826, work did not begin promptly. Nathan S. Roberts, who had worked as an engineer on the Erie Canal, began to survey the route, but he soon found that the terrain on the east side of the Allegheny provided a more precarious passage than the opposite side. When he proposed to shift the route to the west side of that river, the citizens of Pittsburgh loudly protested, for they wanted the canal to terminate in their city and not across the river. As a result, a compromise had to be reached whereby the canal route occupied the west shore of the Allegheny to a point just north of Pittsburgh. The canal was then brought by aqueduct across the Allegheny into Pittsburgh. Finally, work began on this stretch of the line in September 1826.[22]

On April 9, 1827 the state legislature gave permission for a forty-four mile extension of the Western division from the mouth of the Kiskiminetas, up that waterway and its tributary the Conemaugh to Blairsville. By the Act of March 24, 1828 the final segment was authorized from Blairsville along the Conemaugh to Johnstown.[23]

The 103 mile long Western division route, upon leaving Pittsburgh, crossed the Allegheny to its western side. It followed that shore to a point opposite the mouth of the Kiskiminetas. Here, the canal recrossed the Allegheny and followed the south side of the Kiskiminetas for six miles up that river to Leechburg. A dam on the river at that village permitted slackwater navigation for seven miles to Apollo. Leaving the river at Apollo the route followed the north side of the waterway past Saltsburg and then crossed on an aqueduct to the south shore where it passed through the Conemaugh tunnel. Exiting that passageway, boats once more used the slackwater of the river for a short way before entering the canal once more on the north side of the Conemaugh. After a brief run on the north, the canal crossed the stream to the south side. Passing Livermore, the canal again entered the river for a short distance. Again, it left the river to traverse the south shore as far as the Lockport aqueduct which once more transported the canal to the north bank. Except for a brief section of slackwater navigation at Laurel Hill, the Western division remained along the north shore to Johnstown. Of the total distance, slightly more than twenty-seven miles were slackwater and approximately seventy-six were served by the canal.[24]

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[21] McCullough and Leuba, *The Pennsylvania Main Line Canal,* 47.

[22] McCullough and Leuba, *The Pennsylvania Main Line Canal,* 48; Pratt, "The Building of the Pennsylvania Canal," 35, 40, 75; *The Main Line of the Pennsylvania State Improvements,* 14.

[23] *The Main Line of the Pennsylvania State Improvements,* 14; McCullough and Leuba, *The Pennsylvania Main Line Canal,* 51; Pratt, "The Building of the Pennsylvania Canal,"44, 51.

The Western division's topography could be said to be divided into two segments. In the thirty miles from Johnstown to Blairsville the average fall was eight feet per mile thus necessitating about one lock per mile. The remaining seventy-three miles to Pittsburgh fell at a more gentle rate of three feet per mile and, therefore, required a lock on an average of one for a little over two miles. Consequently, the Western division had sixty locks. Unlike the Juniata division, these locks were all constructed of cut-stone laid in mortar. Each lock had cast-iron paddle gates with eight to the lock. The other features, which were constructed in a like manner with those of the Juniata division, comprised sixteen covered aqueducts, ten river dams, sixty-four culverts, thirty-nine waste-weirs, two tunnels, and 152 road and farm bridges. The first tunnel built on the Western division was only the third tunnel to open in the United States. Located on the Conemaugh below Blairsville, this 1,000 foot tunnel served as a cutoff to avoid following a circuitous course of that stream. A second tunnel of 825 feet was bored through Grant's Hill in Pittsburgh. A change in the route, however, left it unused.[25]

Like the Juniata division, contracts were let for half-mile segments with locks and other features placed under separate contract. Contractors were about as reliable as on the other divisions with the result that repairs had to be made on some areas of the Western division before it could be placed into usage. Workmen, too, labored under similar conditions and received comparable pay as their brothers on other divisions.[26]

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[24] McCullough and Leuba, *The Pennsylvania Main Line Canal,* 52-53.

[25] McCullough and Leuba, *The Pennsylvania Main Line Canal,* 52, 58-60; Hubert, *The Great American Canals,* 211.

The first boat on the Western division made a trial run on the section in the Pittsburgh area on October 25, 1828. In 1829 boats began to haul salt from the Blairsville area to Pittsburgh with the result that the first tolls to be collected on the Main Line were obtained from the Western division in that year. By the fall of 1830 canal traffic could traverse the entire division between Pittsburgh and Johnstown. With the division's completion in 1830, the sum expended for construction totaled $3,096,522.30.[27]

CANAL OPERATION

Although segments of the Main Line Canal operated as early as 1829, the entire system was not completed until the portage railroad over Allegheny Mountain opened in the spring of 1834. At that point regular and dependable schedules were maintained. Each boat on the canal had to be registered with the canal commission. Its name and place of ownership had to be prominently displayed in letters no smaller than four inches. The canal size with its four-foot deep channel and fifteen by ninety feet locks was designed to permit seventy-five ton boats. In practice, however, loads tended to average much less as shown by the standard load of forty-five tons on the Juniata division and thirty-five tons on the Western division. Such a situation meant that it required three boats at Johnstown to haul what two boats could haul at Hollidaysburg. The largest vessels that could be accommodated on the canal could be no more than eighty feet long and fourteen feet wide to allow them to go through the locks. In addition these boats could draw no more than three and a half feet of water when fully loaded. At first boats plying the canal were loaded and unloaded at various points in the distance between Philadelphia and Pittsburgh. The first location when traveling westward

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26. McCullough and Leuba, *The Pennsylvania Main Line Canal,* 47, 53-55; Heberling and Heberling, "Phase II Archaeological Investigation: Mount Union Bypass," 27-28; Pratt, "The Building of the Pennsylvania Canal," 53; *The Main Line of the Pennsylvania State Improvements,* 55; Hulbert, *The Great American Canals,* 211.

27. McCullough and Leuba, *The Pennsylvania Main Line Canal,* 57; Pratt, "The Building of the Pennsylvania Canal," 55; Hulbert, *The Great American Canals,* 211; *The Main Line of the Pennsylvania State Improvements,* 15-17, 54.

was at the point the Eastern division of the canal joined with the railroad from Philadelphia at the borough of Columbia. Vessels then had to be unloaded at Hollidaysburg for the trip via the portage railroad over Allegheny Mountain to Johnstown. Here the cargo was reloaded for the haul to Pittsburgh. By the fall of 1834, the smallest boats were placed on trucks and hauled over the portage railroad. Soon boats were constructed in two sections separated by bulkheads so that they could be hauled in segments on the portage railroad and rejoined in the canal. Ultimately, three and four section boats were developed.[28]

Boat crews varied with the vessel. Captains using the canal solely during daylight needed only a crew of a steersman and a driver. Boats running day and night, however, required a crew, in addition to the captain, consisting of two steersmen, two drivers, and possibly a cook. Passenger boat crews were normally larger and could include a scullion or porter-steward as well as one or two other hands. Monthly wages for these laborers netted the captain about $60, a steersman received $25, a cook $20, and a driver earned between $5 to $10. Drivers, who tended to be young boys, were not paid until the end of the season.[29]

During the busy season boats plied the canal in one direction or the other at fifteen to twenty minute intervals. In a representative season, which averaged thirty-six weeks, 3,600 boats arrived at Hollidaysburg from the east. Two to three of the daily arrivals were passenger vessels while the remainder were either freight or a combination of passenger and freight. The larger vessels which operated around the clock required six mules to draw them. Three of these animals were used at a time in sixteen mile stretches. They were driven along the towpath by a young boy who usually walked in rain or sunshine behind them. Smaller boats which halted at night, operated with as few as one mule. To protect the banks from erosion, the canal commissioners set a speed limit of four miles per hour. Speeders could be fined as much as $10. With written permission, a boat could exceed the speed limit. Frequently, the first class passenger boats traveled faster than the limit with or without permission. Passenger vessels had the right-of-way. Other boats were required to steer to the far side of the canal and allow their rope to go slack when overtaken by a passenger vessel. Such boats could

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28. McCullough and Leuba, *The Pennsylvania Main Line Canal*, 57-58, 94-95, 98-100, 106, 146; *The Main Line of the Pennsylvania State Improvements*, 50.

29. McCullough and Leuba, *The Pennsylvania Main Line Canal*, 106.

average eighty to 100 miles per day while the slower freights made only twenty-five to forty-five miles.[30]

Delays in travel were frequent. Holdups could occur at locks and slow the usual time of three minutes that it took to pass a lock. In addition to boats waiting a turn at locks, a seasonal lack of water caused problems. Frequently, traffic slowed significantly in the months of August, September, and October from lack of water. On the other hand too much water could disrupt canal operations as well. Freshets or floods could pour unneeded water into the canal and with this water came sediment which could silt the bottom. In addition such water sometimes swept away aqueducts and sections of the tow path. Dams, which provided slackwater sections, often gave way in the face of flood water. The stream water then could not support traffic. Sometimes an old boat would sink and obstruct the channel. Other times rodents would burrow into the canal embankment causing a leak which, if not detected, could result in a washout. Leaks were taken with such seriousness that, during the boating season, individuals were hired to walk the canal to look for leaks. If such holes were detected, the watchman would plug them with stones and straw and then ram earth and clay into them as a further protective measure.[31]

Many canal repairs were accomplished during the winter. If an early freeze did not occur, the canal would be drained for repair work. In addition the sediment build-up would be removed by workers who labored in very unpleasant conditions. If the canal froze before it could be drained, the ice accumulation could damage the prism so that spring repairs would be needed before the canal could be placed into use. Ice also frequently caused the disintegration of dams which supported the slackwater sections and thus navigation was delayed until these structures were replaced.[32]

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30. McCullough and Leuba, *The Pennsylvania Main Line Canal*, 88-89, 95-96; *The Main Line of the Pennsylvania State Improvements*, 50.

31. McCullough and Leuba, *The Pennsylvania Main Line Canal*, 115, 139-140; Heberling and Heberling, "Phase II Archaeological Investigation: Mount Union Bypass," 22, 24.

32. McCullough and Leuba, *The Pennsylvania Main Line Canal*, 115, 140.

SALE OF THE MAIN LINE

At the time of construction, many people thought that the canal would produce large sums for the state treasury. When the canal failed to generate enough revenue to pay off the construction debt, taxes were required to meet debt payments. Citizens of the state thereby concluded that the canal operation was mismanaged. As a result, it was easy for the governor and legislature to persuade the public that it was in the interest of the state to sell the canal when financial difficulties beset the state in 1842. In keeping with this feeling, the legislature gave authority to the governor to advertise for bids. The state found only two offers when the bids were opened on July 27, 1842. Both bids, which covered only parts of the canal, were dismissed for failing to make a reasonable offer.[33]

Another effort was made to divest the state of the canal by the Act of April 29, 1844. This legislation offered to transfer the canal and railroads to any person or corporation for $20,000,000 provided that it would be maintained and operated forever. When a number of people objected to the sale, the state placed the issue before the voters. The referendum revealed that the public desired to get rid of the canal. No concern, however, came forward with an offer to purchase it.[34]

The Main Line sale issue died for ten years. When the Pennsylvania Railroad completed its line across Pennsylvania in 1854, the state decided it was again time to sell its public works. The Act of April 27, 1854 reduced the sale price to $10,000,000, but the purchaser was still required to maintain and operate the canal forever. Although it was the intent of the legislature to entice the Pennsylvania Railroad into buying the line, neither that transportation concern nor any other group made an offer. Once more the state proposed a sale in May 1855. At that time the Pennsylvania railroad made a counter offer to buy the line for $7,500,000 with the intent to abandon the portage railroad and the canal's Western division. To consign a portion of the Main Line to disuse gave the legislature pause for thought. State leaders decided not to accept the offer. They changed their collective minds, however, and by the Act of May 16, 1857 the Pennsylvania Railroad's terms were accepted. As a result, that railroad bought the Main Line on June 25 and took possession on August 1, 1857.[35]

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[33] McCullough and Leuba, *The Pennsylvania Main Line Canal,* 33, 152-153.

[34] *Ibid.,* 153-154.

Despite the fact that the Main Line did not generate sufficient tolls to make it a paying proposition, it did have a tremendous economic impact on the state. It opened the western part of the state to settlement and promoted the rapid growth of towns along the route, furnished merchants with a cheap distribution system both within the state and to the region west of Pennsylvania, and provided thousands of persons with employment. When considered in those terms, the Main Line was a huge success.[36]

ABANDONMENT

Between the time the Pennsylvania Railroad purchased the Main Line in 1857 and 1899, that transportation company slowly abandoned portions of the old public works system. The portage railroad was immediately discontinued. This break in the line left the Western division separated from the rest. Consequently, the portion of the Western division between Johnstown and Blairsville was deserted in 1863 followed by the remainder of that division in 1864. As for the Juniata division, thirteen miles between Hollidaysburg and Williamsburg were discontinued in 1872. Three years later an additional eighteen miles from Williamsburg to Petersburg were forsaken. Another segment closed in 1876 so that the canal no longer carried traffic above Huntingdon. In 1888 the section between Huntingdon and Newton Hamilton fell into disuse. A great flood in 1889 ended all operations above Newport. Ten years later the Pennsylvania abandoned the remainder of the Juniata division.[37]

Little remains of the old Main Line today. Succeeding floods have taken their toll to speed destruction. In a number of areas, the Pennsylvania Railroad filled the prism and constructed tracks on it. It has even been used for highway rights-of-way in areas. On the old Juniata

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35. McCullough and Leuba, *The Pennsylvania Main Line Canal*, 158-161; Hulbert, *The Great American Canals*, 215; Heberling and Heberling, "Phase II Archaeological Investigation: Mount Union Bypass," 22.

36. *The Main Line of the Pennsylvania State Improvements*, 11.

37. McCullough and Leuba, *The Pennsylvania Main Line Canal*, 164, 166; Heberling and Heberling, "Phase II Archaeological Investigation: Mount Union Bypass," 22.

division the best preserved remains can be found at "The Locusts," a campground west of Lewistown where a short segment of the prism has been restored and filled with water. Three locks and a short distance of the prism have been preserved at Lockport. A number of well preserved features are found just east of Newton Hamilton. These items include 14,000 feet of the prism, a guard lock associated with the Aughwick feeder dam, two lift locks, a canal basin, remains of the Beaver Dam Creek aqueduct, remains of a public bridge, and the ruins of a locktender's house. An intact locktender's house is located just west of Newton Hamilton. Some intact canal sections can also be found between Kistler and Newton Hamilton. As for the Western division, longer abandonment has taken a greater toll, but ruins of locks and aqueduct pier abutments can be periodically found. The best preserved remains can be found in the Blairsville area. In addition the 1,000 foot long Conemaugh Tunnel still exists although one entrance has been filled.[38]

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[38] McCullough and Leuba, *The Pennsylvania Main Line Canal,* 172-177; Heberling and Heberling, "Phase II Archaeological Investigation: Mount Union Bypass," 22, 24-25.

CHAPTER II. EXTANT FEATURES OF THE WESTERN AND JUNIATA DIVISIONS

WESTERN DIVISION

The Pennsylvania Mainline Canal Western Division, in the counties covered by the America's Industrial Heritage Project area, runs for 74.35 miles between canal mile 29.1 at Freeport, where it crossed the Allegheny River above Pittsburgh, to mile 103.45 in Johnstown. Owing to the fact that this division was the first of the canal segments to be abandoned, time has taken a greater toll on its features. The best preserved remnant can be found in the section above Blairsville. Consequently, any potential preservation/restoration effort should focus here. An excellent canal channel containing water with a nicely preserved towpath is located in this area between miles 78.6 to 79.2. One of the best preserved locks — lock 5 — with its cut stone walls is intact in this segment at mile 78.75. All photographs were taken in January/February 1991.

Mile 29.1 — The earthen portion of the Freeport Aqueduct abutment remains, but the stone abutment part is missing although several cut stones from it can be found lying about 200 feet south of the area.

Mile 29.3 to 35.25 — In this area a remnant of the canal channel remains, but it basically appears as a slight depression along side of the railroad track which runs atop of the towpath. Water can be found in the channel at mile 29.5, 30.5, and for a distance of about 500 feet beginning at mile 31.25. At mile 30.05 an arched canal culvert, now partly collapsed, can be seen inside a later railroad culvert (Photograph 1).

Mile 35.25 to 41.6 — In this segment the canal made use of the Kiskiminetas River for slackwater navigation. Between miles 35.25 and 37.5 railroad track occupies the former towpath. Little trace of the towpath remains in the rest of this segment.

Mile 41.6 to 45.3 — In this portion the Western Division left the river and returned to a canal channel. At miles 41.6 and 41.65 in North Apollo, the areas occupied by locks 1 and 2 are evident, but nothing remains of the locks except some cut stone at lock 1 and earthen abutments at lock 2 (Photographs 2 and 3). Water half fills the canal channel for several hundred feet at mile 41.8 (Photograph 4). Water can also be found in the channel for over a mile between miles 44 and 45.1.

Mile 45.3 to 52.6 — In this length of the division the Kiskiminetas River provided slackwater navigation with the towpath following the river bank. The foundation for a locktender's house, earthen parts of the abutments for guard lock 2, and a few cut stone of the north abutment of dam 2 are visible at mile 45.3 (Photograph 5). Some cut stone remains from a towpath culvert at mile 46.0. A fairly intact stone towpath revetment wall is located at mile 47.35. Cut stone and earth from the east and west towpath bridge abutments at Flat Run survive at mile 47.5 (Photographs 6 and 7) with a nearby cut stone towpath revetment wall at mile 47.55. The towpath remains visible between mile 49.0 (Photograph 8) and mile 50.4. A few stones remain from the lock 4 locktender's house at mile 49.2 and the guard lock at mile 49.25. A poorly defined earthen portion of the north towpath bridge abutment is located at mile 50.25 (Photograph 9). Between mile 50.5 and 52.6 railroad tracks obscured the towpath.

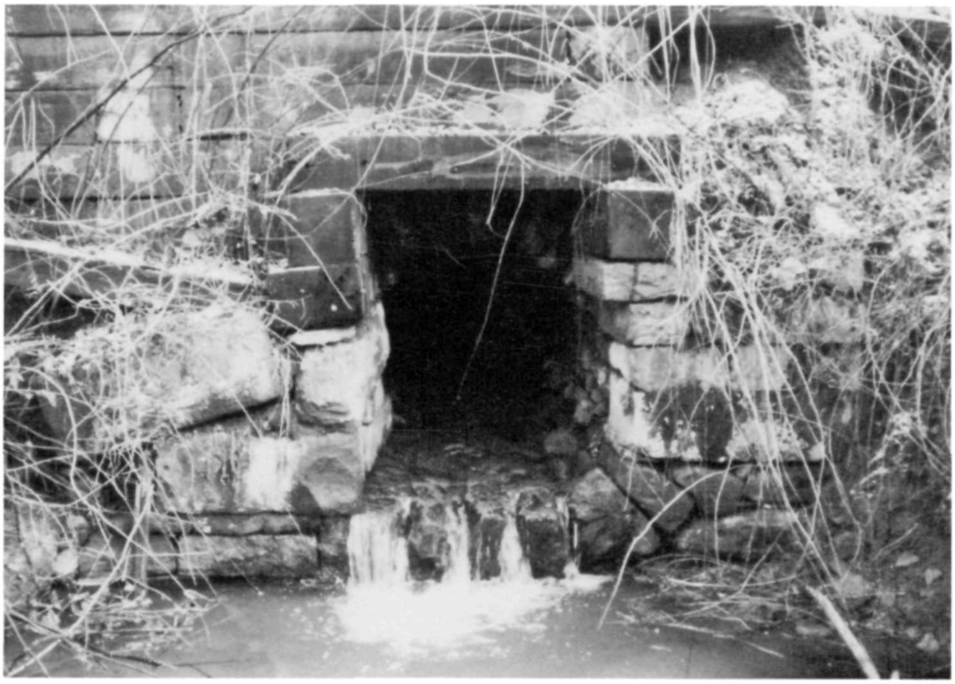
Mile 52.6 to 56.05 — For these miles, the canal occupied its own channel. In some places a railroad grade covered the towpath. Water can be found in the canal channel between miles 53.6 to 53.8, 54.75 to 54.9, and 55.2. At mile 52.6, adjacent to a railroad culvert, some stones remain from lock 5 while nearby, at mile 52.75, the foundation of a locktender's house are visible. Photograph 10, taken at mile 54.6 shows the site of an aqueduct over Blackleg's Creek. In Saltsburg the borough has established a canal park at mile 55.55 along which the route can be traced by a green space (Photograph 11). At that same location the foundation for the lock 8 locktender's house is situated (Photograph 12). Nearby, a slight depression at mile 56.0, shows the course of the canal channel (Photograph 13).

Mile 57.3 to 68.0 — In this approximately ten and three-fourth mile area, beginning about three-fourth of a mile up stream from Saltsburg, the canal and towpath can be readily traced and, in several locations at miles 58.2, 62.3, and 67.5-68.0, it still contains water. In a section between miles 63.1 to 65.1 the canal made use of slack water navigation in the Conemaugh River. Some remnants of other canal features can be found as well. Two arched culverts remain at miles 57.3 and 57.5 (Photographs 14 and 15). The site of lock 9 can be viewed at mile 57.55 (Photograph 16). A length of watered canal appears at mile 58.2 (Photograph 17). The cut stonework of a waste gate remains at mile 58.4 (Photograph 18) as well as some stones from a feeder stream inlet. Although no longer extant, the site of the Elder's Run aqueduct is located at mile 59.75 (Photograph 19). A partly collapsed culvert can be seen at mile 61.3. Some scattered stones from lock 11 are located at mile 61.6 (Photograph 20) along with a possible foundation of a locktender's house. Remnants of a stone wall are found at mile 61.95. Water remains in the canal at mile 62.3 while the canal channel with towpath are visible at mile 62.5 (Photograph 21). Scattered stone mark the site of the Bow Ridge aqueduct abutments at mile 62.7. The 1,000 foot long Conemaugh tunnel, located between mile 62.8 and 62.9, has been blocked at both ends for safety. Presumably, it remains intact. Finally, a half mile of watered canal can be seen between miles 67.5 and 68.0 (Photograph 22).

Mile 68.0 to 87.0 — Although the canal channel has silted or been flooded for the first two miles from mile 68.0 to 70.0 the remainder of the nineteen mile area contains extant remnants. Water is found in the canal at miles 74.75, 75.0 to 75.4, 75.5 to 75.8, 76.7 to 77.4, 78.85, 80.7 to 80.9, 81.4, 85.5 to 85.7, and 85.9 to 86.2. An excellent canal channel with a nice towpath can be seen between miles 78.6 to 79.2. The Pennsylvania Railroad bed has obscured the canal between miles 84.2 and 85.2. A portion of a wing guard remains on the lower side of the towpath at mile 70.7. Nearby, at mile 70.95, a part of the Stone Run aqueduct is visible. The channel depression at mile 71.0 indicates the site of lock 16 (Photograph 23). A basin which supplied the canal with water remains above the dam and guard lock 5 at mile 72.4 (Photograph 24). The arched towpath culvert at mile 73.85 is whole (Photograph 25). Stone abutment walls for the towpath bridge over McGee Run are found at mile 74.2 (Photograph 26). Some cut stone debris can be found at the sites of lock 1 (mile 74.4), lock 2 (mile 74.9), and lock 3 (mile 75.45). At mile 75.8 water still stands in the canal (Photograph 27). A partly collapsed culvert is located at mile 76.1 with its lower stone face intact (Photograph 28). A cleared area in the woods traces the canal channel at mile 76.2 (Photograph 29). The site of lock 4 is marked by a depressed tract at mile 76.75 (Photograph 30). An intact arched culvert appears at mile 76.8 (Photograph 31). Scattered stones from a canal bridge abutment remain at mile 77.0 (Photograph 32) as well as at the site of an abutment of a towpath crossover bridge at mile 77.45 (Photograph 33). Part of the cut stone from the lower end of guard lock 1 (Photograph 34) and the southwest abutment of dam 1 (Photograph 35) are still located at mile 77.55. Poorly defined stone mark the site of a revetment wall, called the "great Wall," at mile 78.45 (Photograph 36). Lock 5 at mile 78.75 is one of the best preserved locks of the Western Division with its cut stone walls intact (Photograph 37). It is the only one capable of being restored to working order. A view of the canal channel at mile 78.85 shows some water present (Photograph 38). Scattered stone mark the site of guard lock 2 at mile 79.1 (Photograph 39). In addition the foundation stones of a locktender's house are visible at mile 79.1. Some cut stones indicate the location of a revetment wall above guard lock and dam 2 at mile 79.15 (Photograph 40). Only a few dispersed stone indicate the site of lock 6 at mile 80.5 while little remains of the abutment of the towpath crossover bridge at mile 80.6 (Photograph 41). Hardly any distinguishing features mark the site of lock 7 and the waste gate at mile 80.7. The foundation stone of a locktender's house are present at that mile. Little can be found at the location of lock 8 at mile 81.05 except for a small stone wall from the adjacent waste gate at mile 81.00 (Photograph 42). Nothing remains at mile 81.25 to indicate the site of lock 9. A remnant of the east abutment wall for the Tubmill Creek aqueduct at mile 81.95 has subsequently been incorporated into a railroad bridge (Photograph 43). The same fate befell the Lockport aqueduct at mile 84.0 as the abutments and wing wall were used for a later railroad bridge (Photograph 44). A partly collapsed culvert can be found at the site where the canal crossed Reed's Run at mile 85.2 (Photograph 45). Nearby at mile 85.6 water occupies the canal channel remains (Photograph 46). Finally, at mile 87.0 a garbage dump partly fills the canal.

Mile 87.0 to 93.7 — In this section the canal is either very poorly defined or has ceased to exist. For the most part the later construction of the Pennsylvania Railroad line was responsible for the destruction in this section.

Mile 93.7 to 103.45 — Nothing remains of the canal between these miles except for a short section of the towpath visible below the railroad grade between mile 96.25 and 96.8, and in the area of mile 97.0. Several stones can be seen at the site of the upper end of the guard bank at dam 4 (Photograph 47). Development in and around Johnstown has obliterated the canal features.

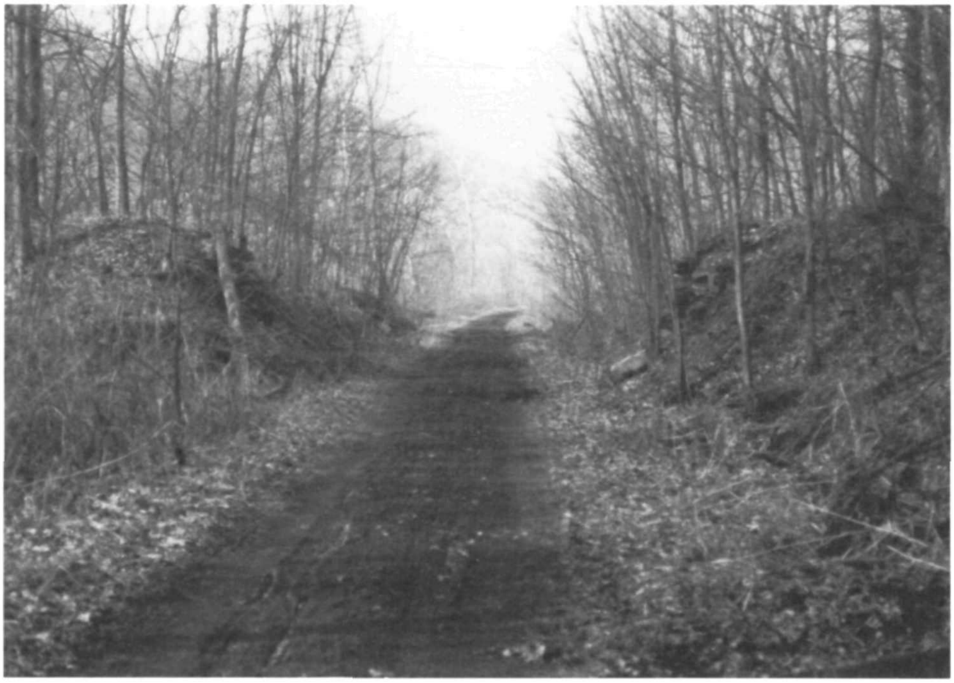


Photograph ① The lower end of the culvert at mile 30.05. The arched canal culvert is visible inside a larger railroad culvert

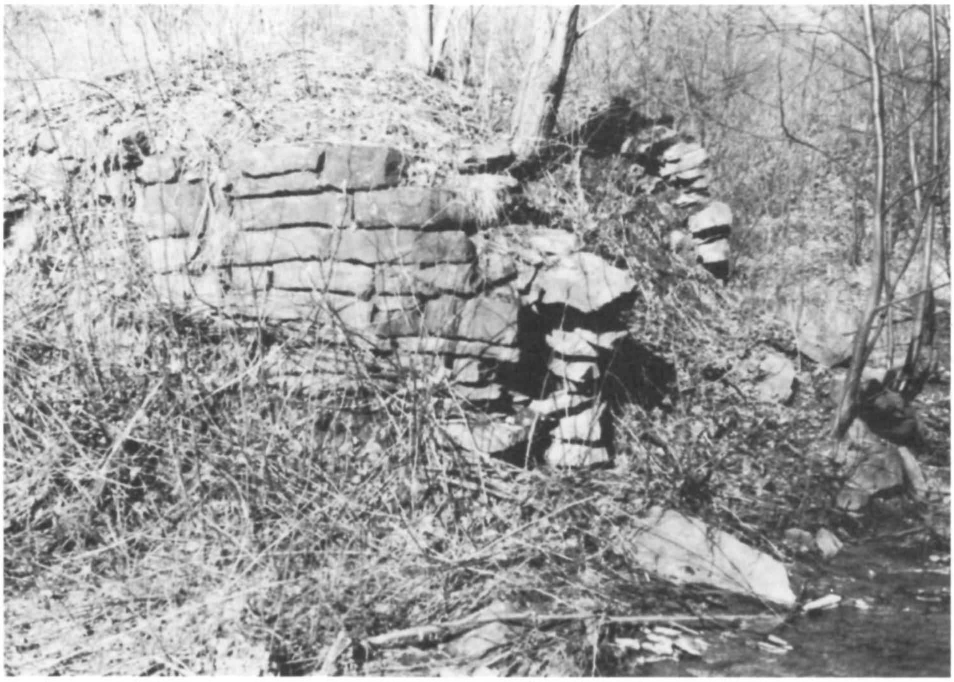
Photograph ② Site of outlet lock 1 at mile 41.6. Only the depression on the left remains of this lock

Photograph ③ Site of lift lock 2 at mile 41.65. The circular depression in the center contains the site of this lock

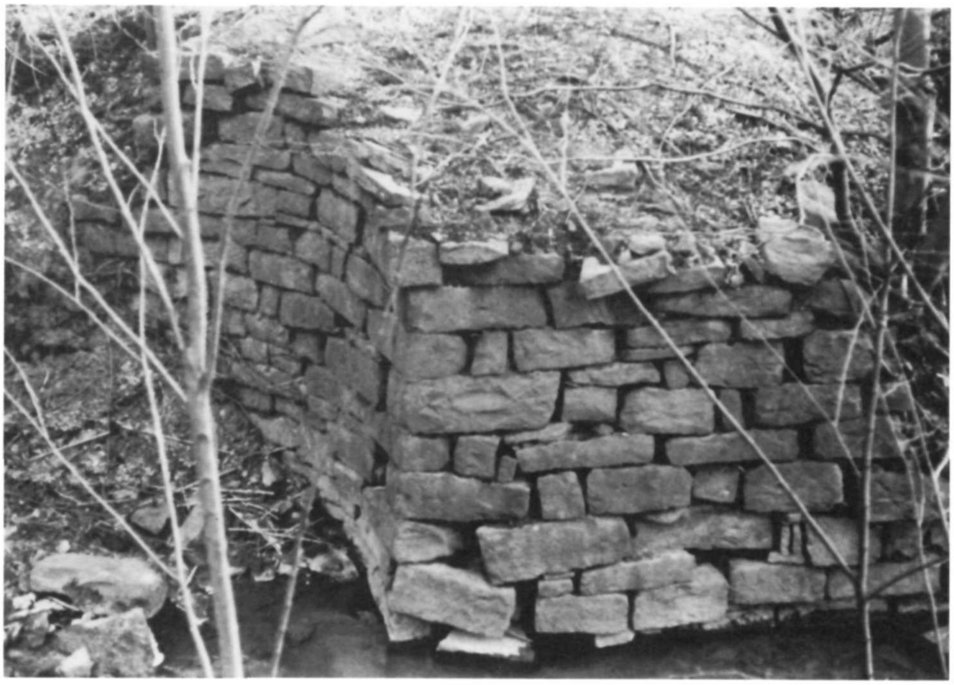
Photograph ④ Canal with water at mile 41.8



Photograph ⑤ Site of guard lock 2 at mile 45.3. This view looks through the remains at the guard lock

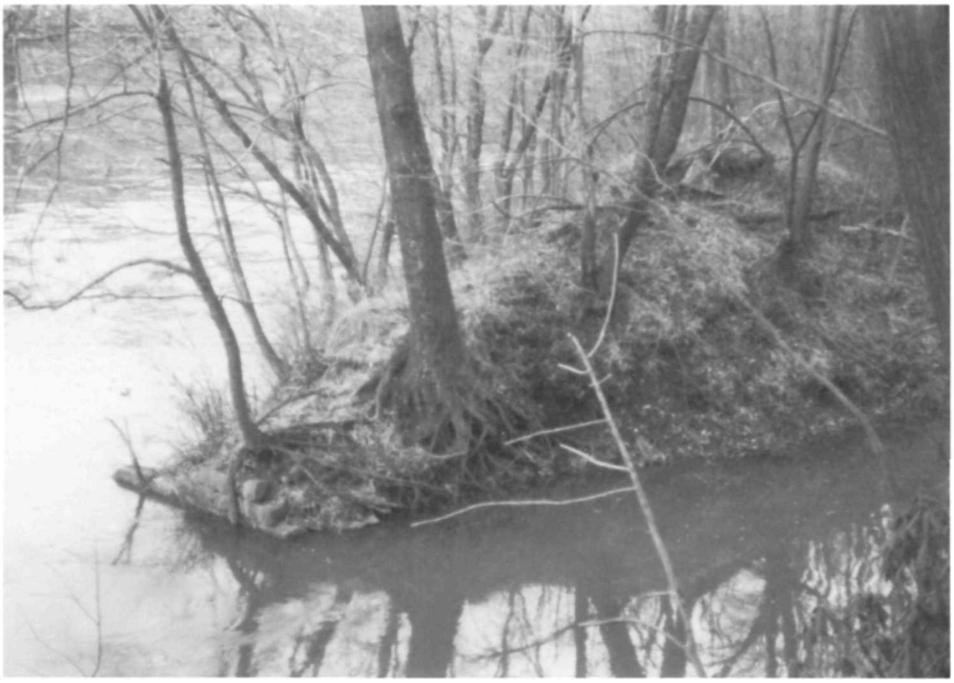


Photograph ⑥ Remnant of the Flat Run towpath bridge west abutment at mile 47.5

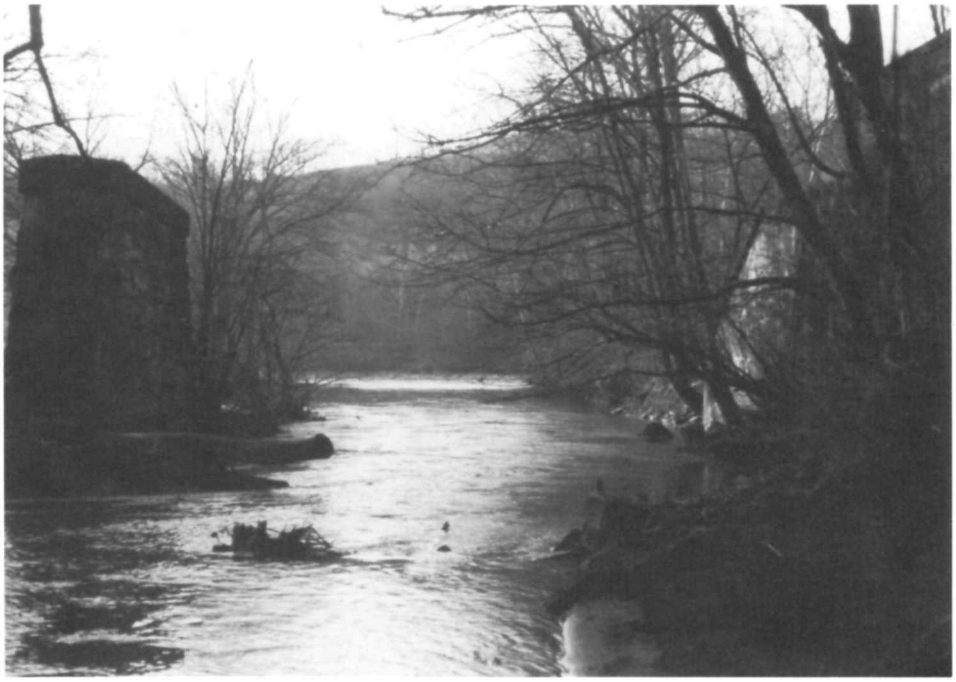


Photograph ⑦ Remnant of the Flat Run towpath bridge east abutment at mile 47.5

Photograph ⑧ Remains of the towpath at mile 49.0

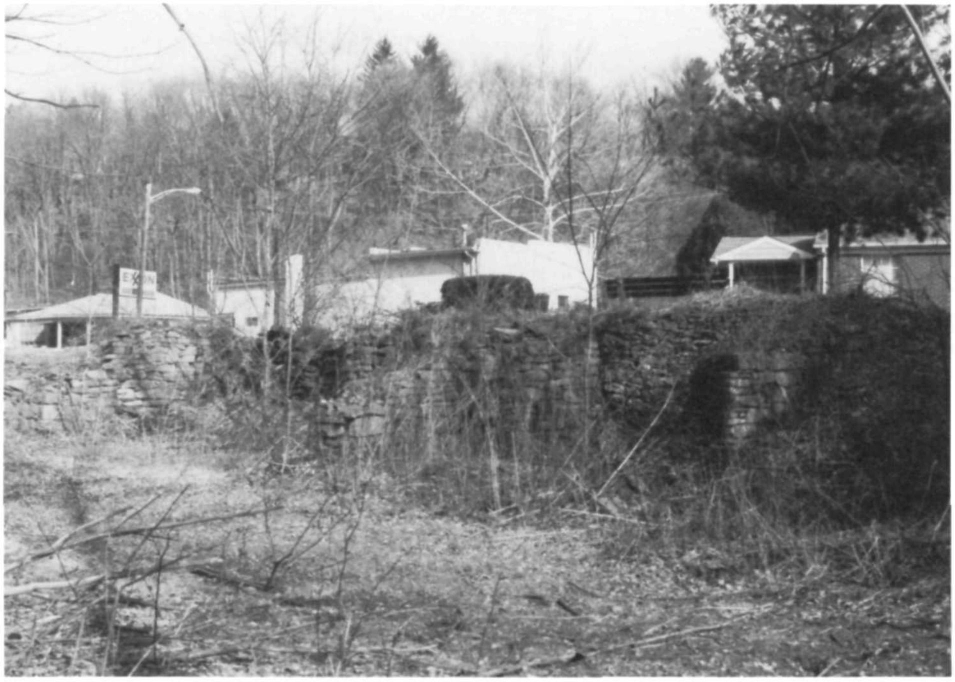


Photograph ⑨ Remains of a Long Run towpath bridge abutment at mile 50.25

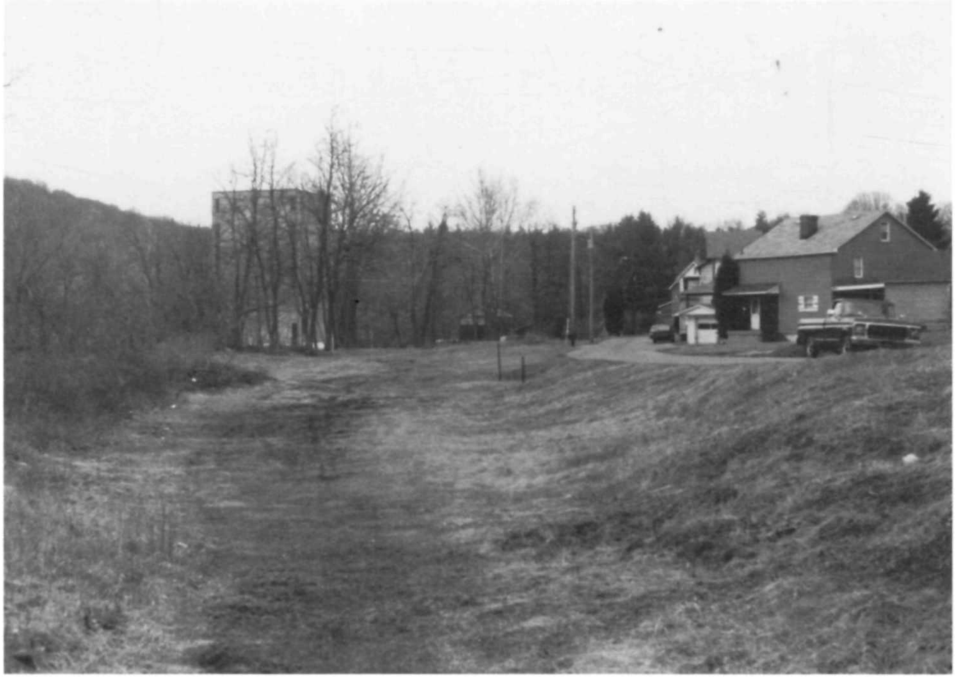


Photograph ⑩ View down Blackleg's Creek at the site of the aqueduct at mile 54.6

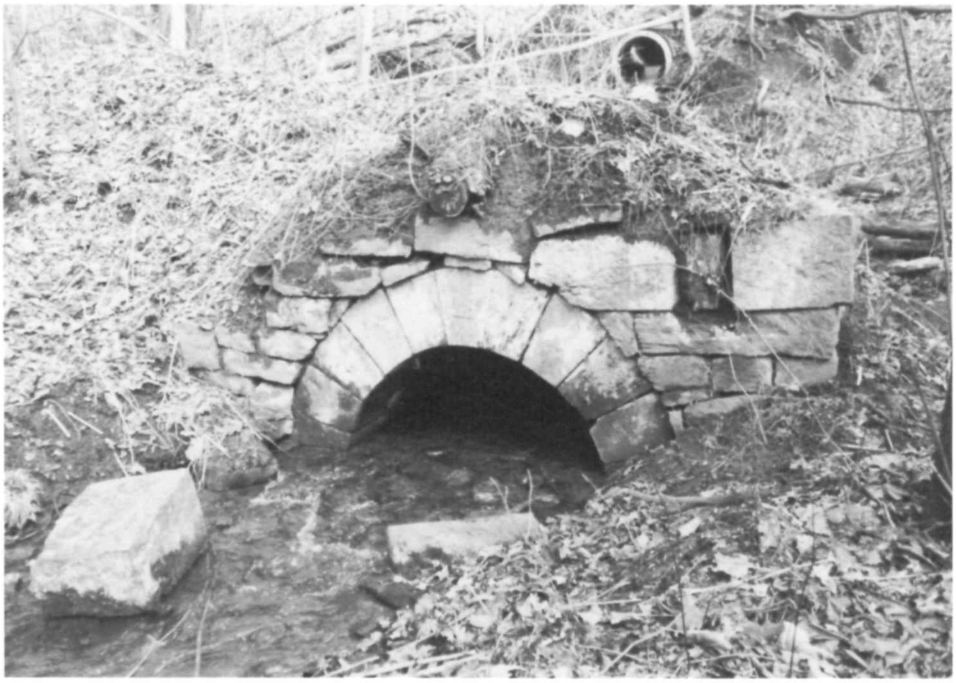
Photograph ⑪ Site of the canal in Canal Park in Saltsburg at mile 55.55



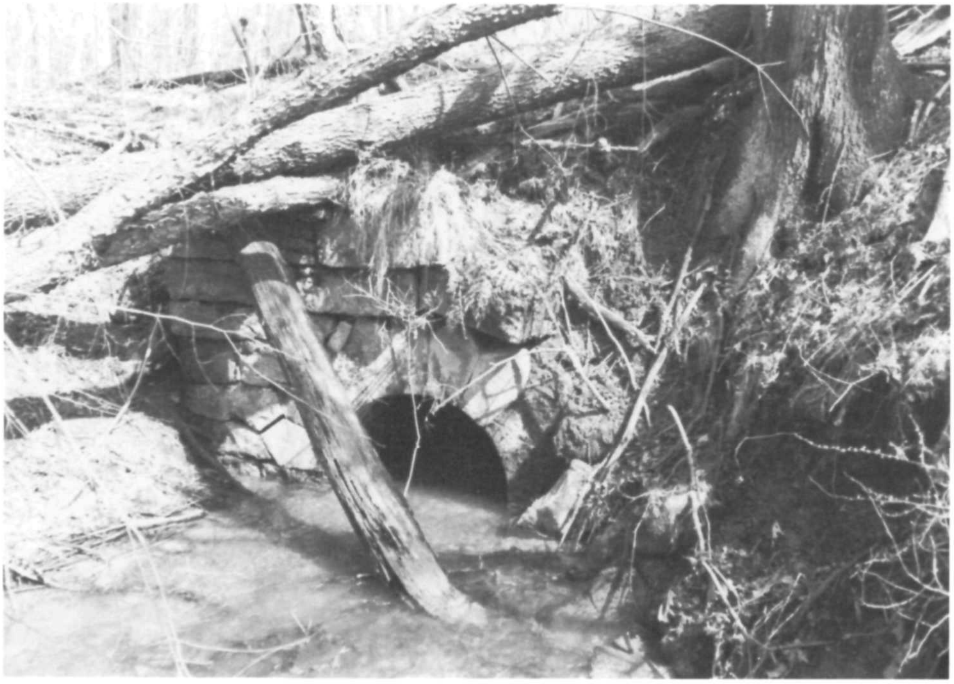
Photograph ⑫ Foundation of the lock 8 locktender's house in Canal Park in Saltsburg at mile 55.55



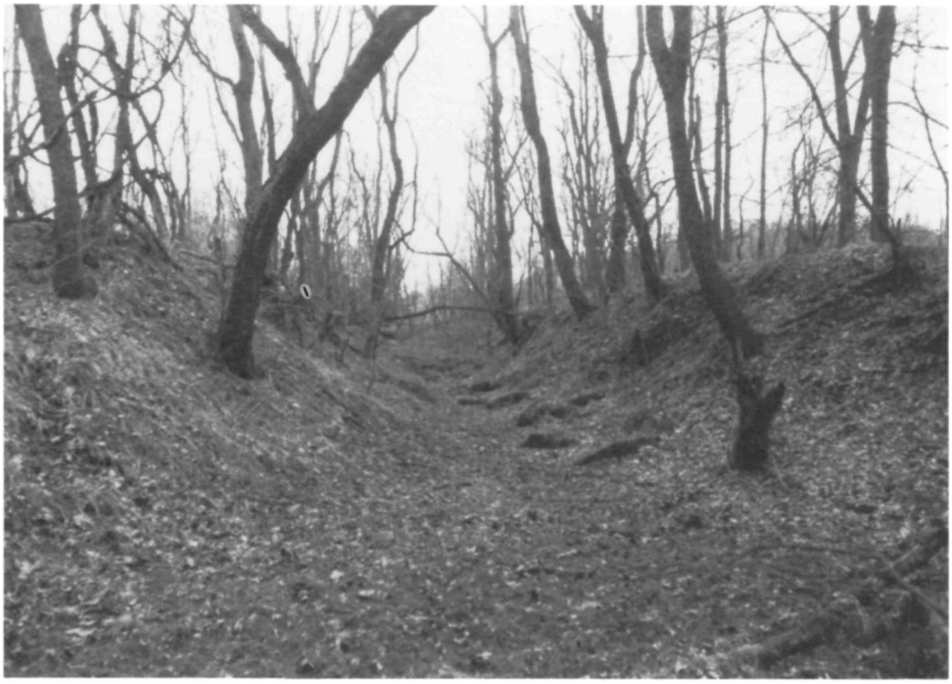
Photograph ⑬ Remains of the canal viewed from the High Street bridge in Saltsburg at mile 56.0



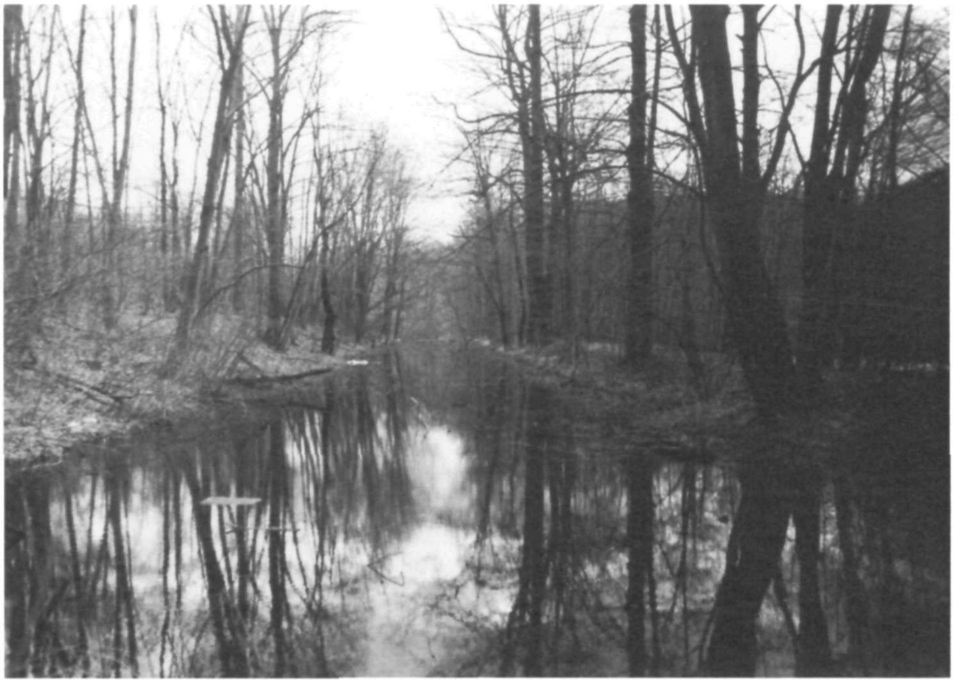
Photograph ⑭ Remains of an arched canal culvert at mile 57.3



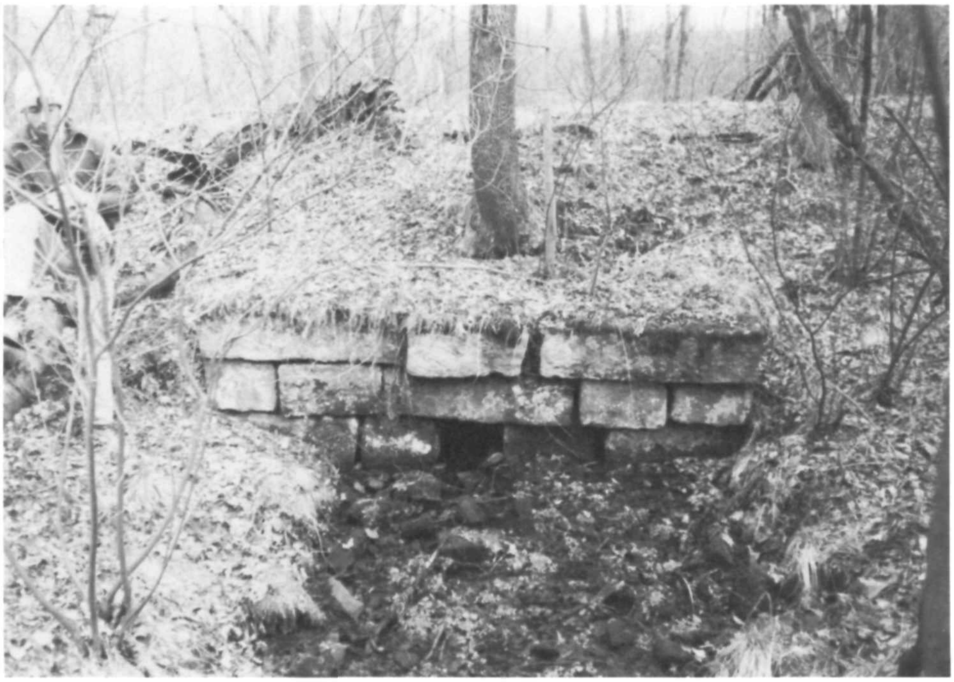
Photograph ⑮ Remains of an arched canal culvert at mile 57.5



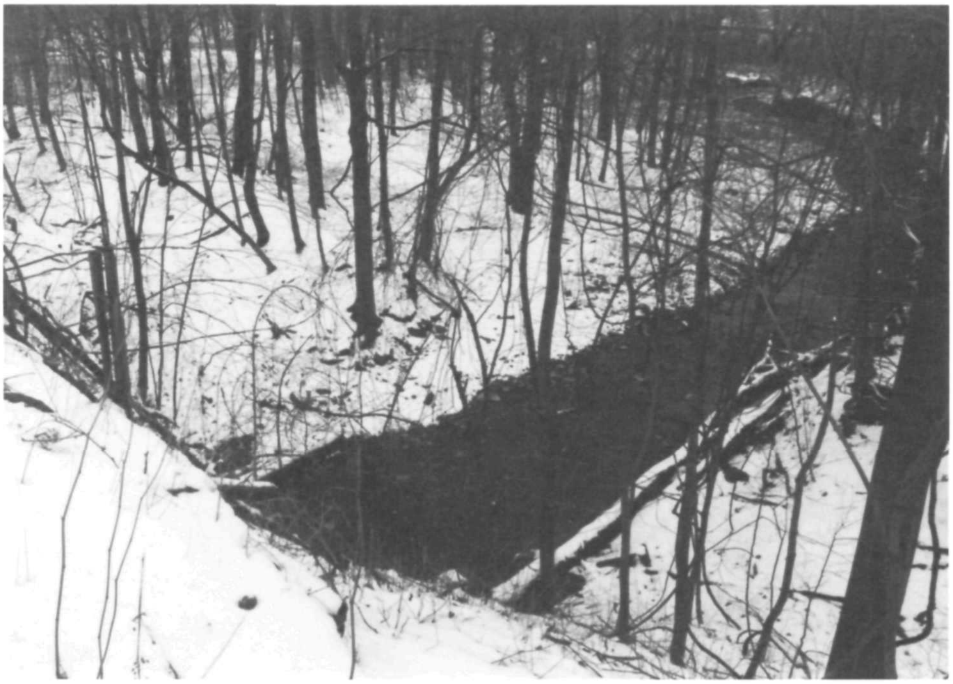
Photograph ⑯ View through the area at the site of lock 9 at mile 57.55



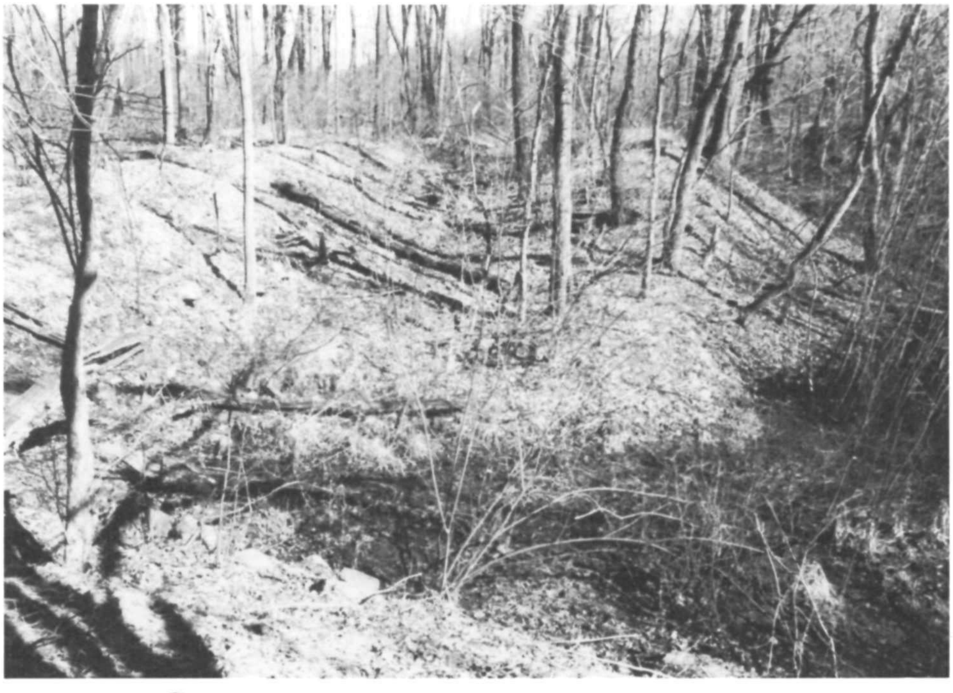
Photograph ⑰ Canal with water at mile 58.2



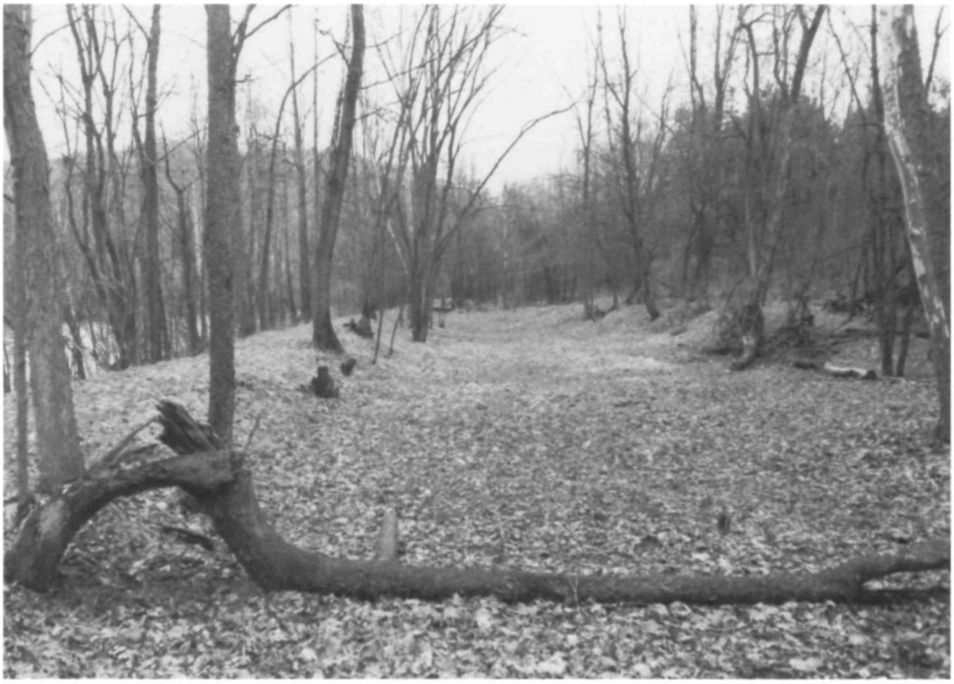
Photograph ⑱ Remnant of the waste gate at mile 58.4



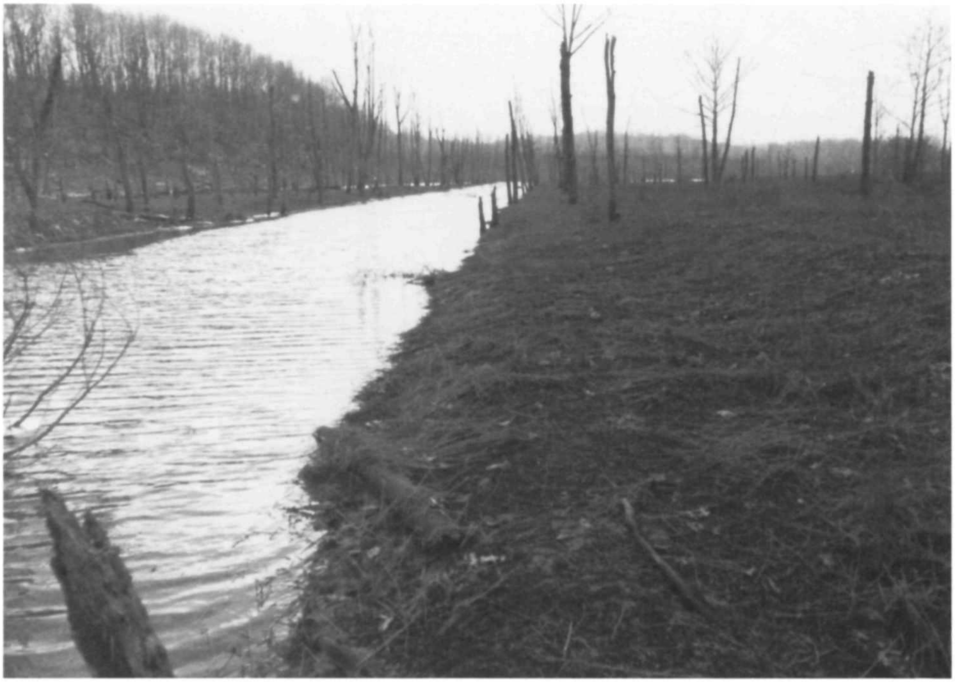
Photograph ⑲ Site of the Elder's Run aqueduct at mile 59.75



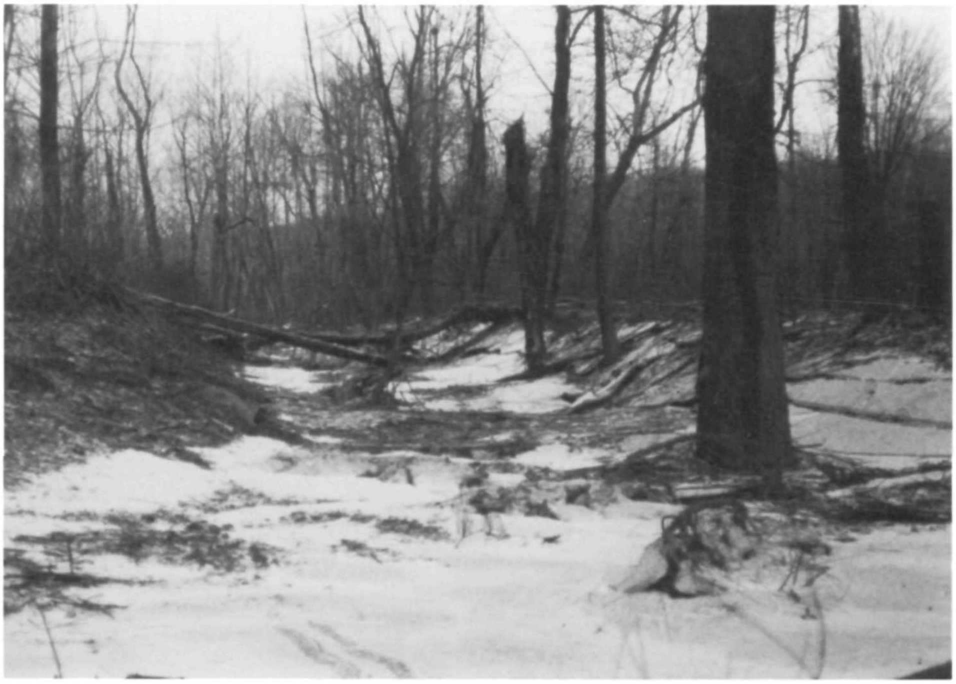
Photograph ⑳ Site of lock 11 at mile 61.6



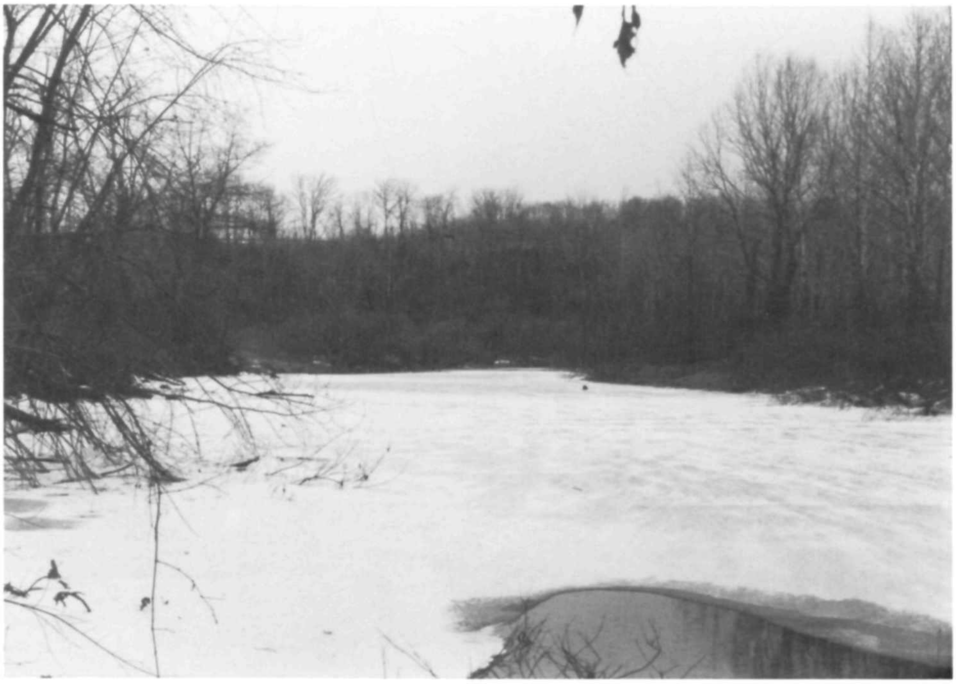
Photograph ㉑ Remains of the canal and towpath (on left) at mile 62.5



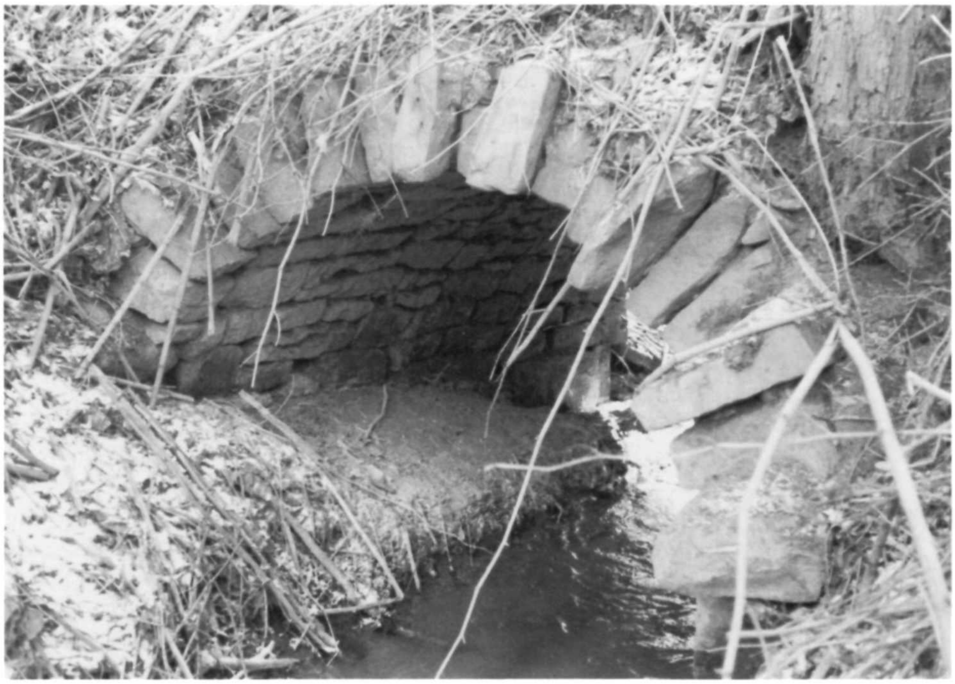
Photograph ㉒ Canal with water at mile 67.85



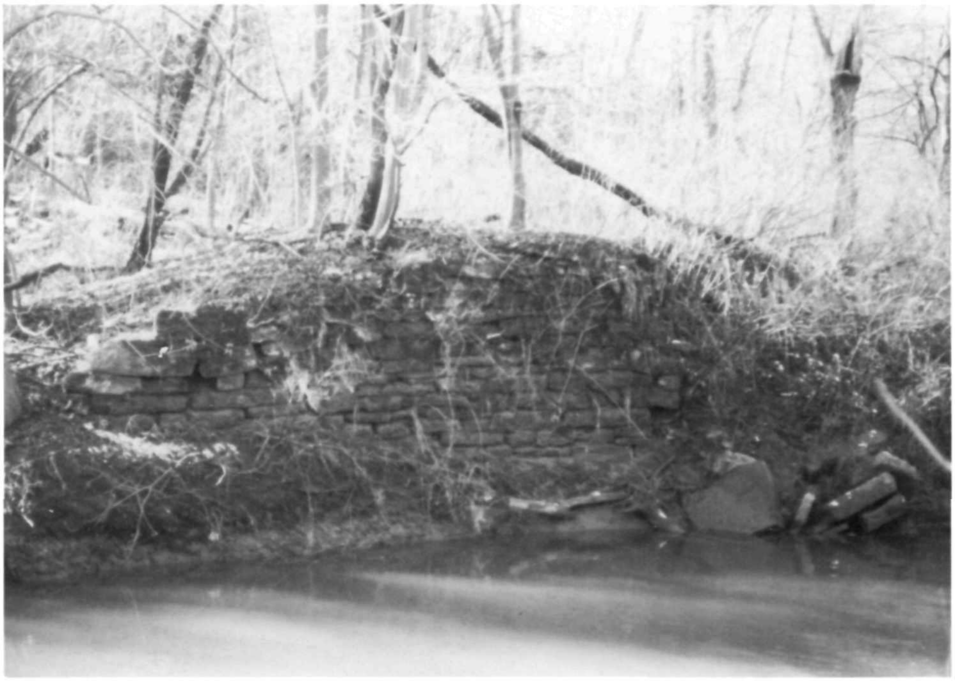
Photograph ㉓ Site of lock 16 at mile 71.0



Photograph ㉔ Basin and canal above dam and guard lock 5 at mile 72.1

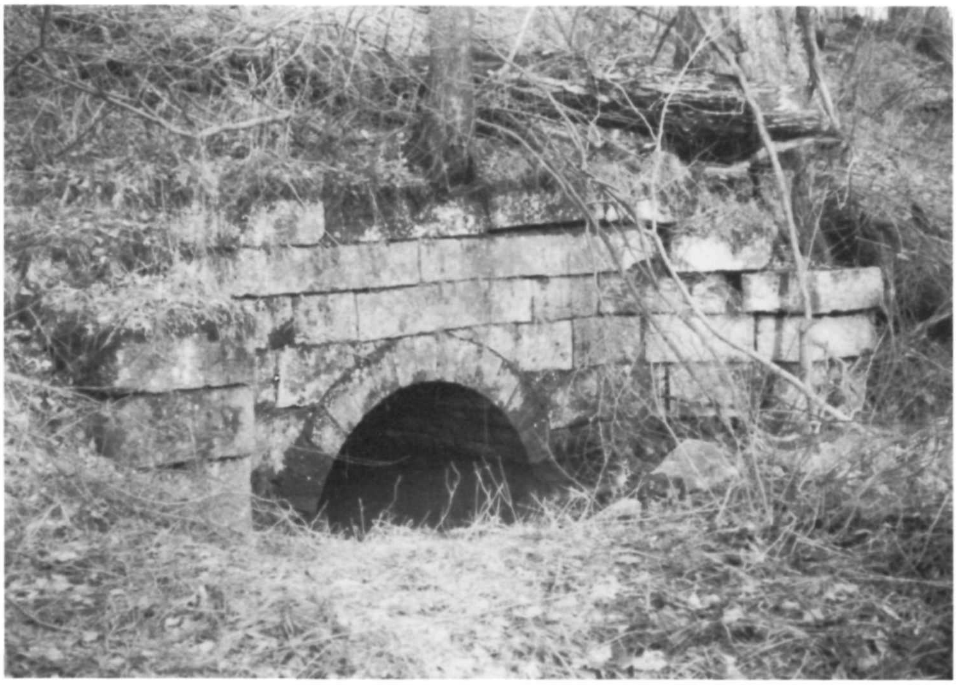


Photograph ㉕ Remains of the arched towpath culvert at mile 73.85



Photograph ㉖ Remains of the west abutment of the McGee Run towpath bridge at mile 74.2

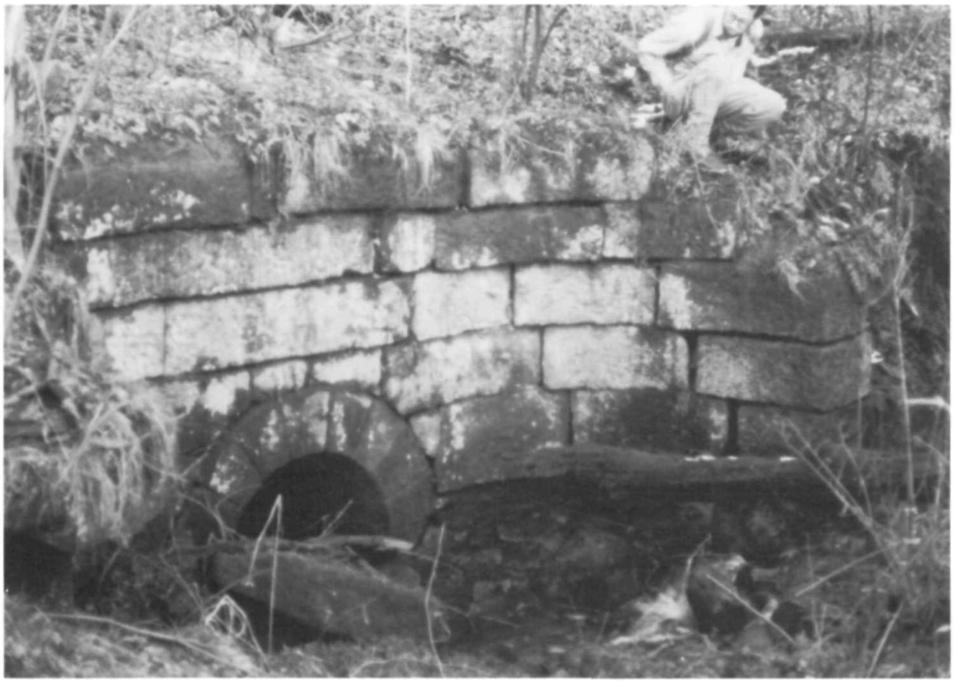
Photograph ㉗ Canal with water at mile 75.8



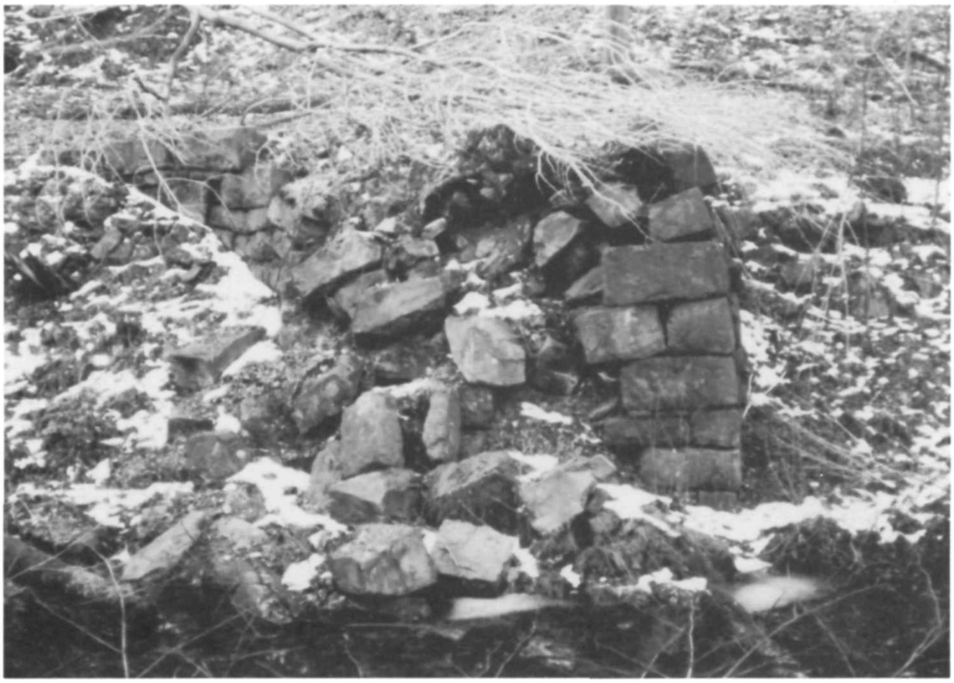
Photograph ㉘ Remains of an arched canal culvert at mile 76.1

Photograph (29) Remains of the towpath at mile 76.2

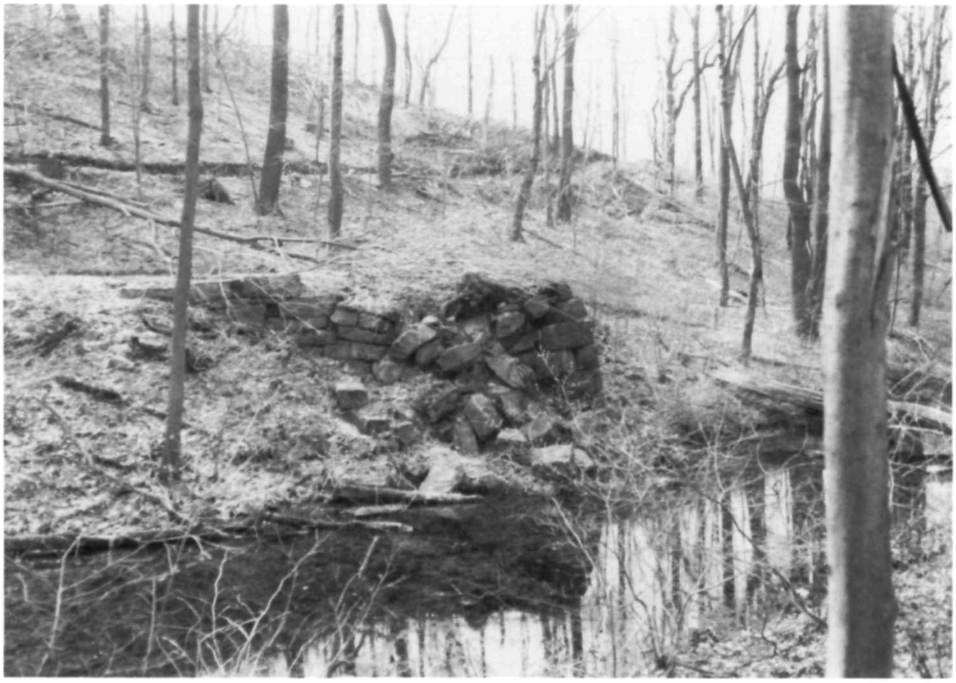
Photograph (30) Site of lock 4 at mile 76.75



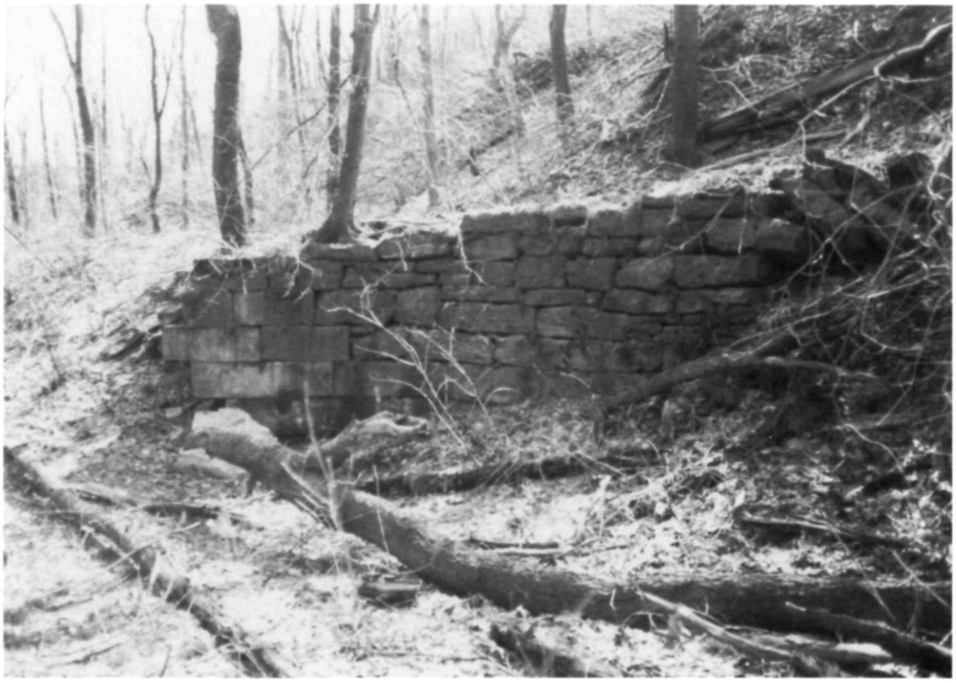
Photograph ㉛ Well preserved arched canal culvert at mile 76.8



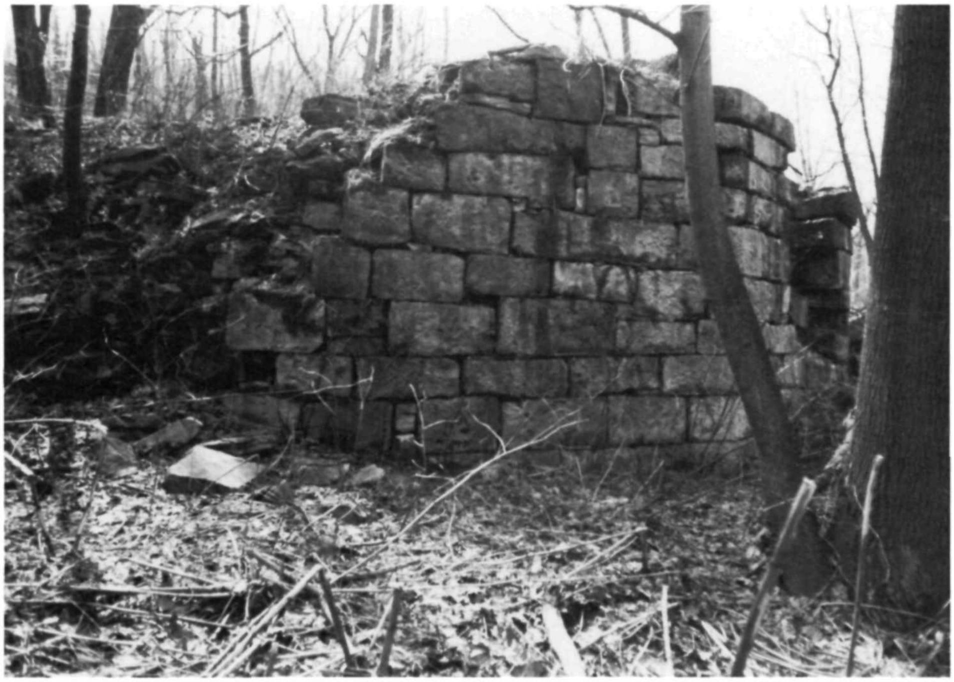
Photograph ㉜ Remains of a canal bridge abutment at mile 77.0



Photograph ㉝ Remains of a towpath crossover bridge abutment at mile 77.45

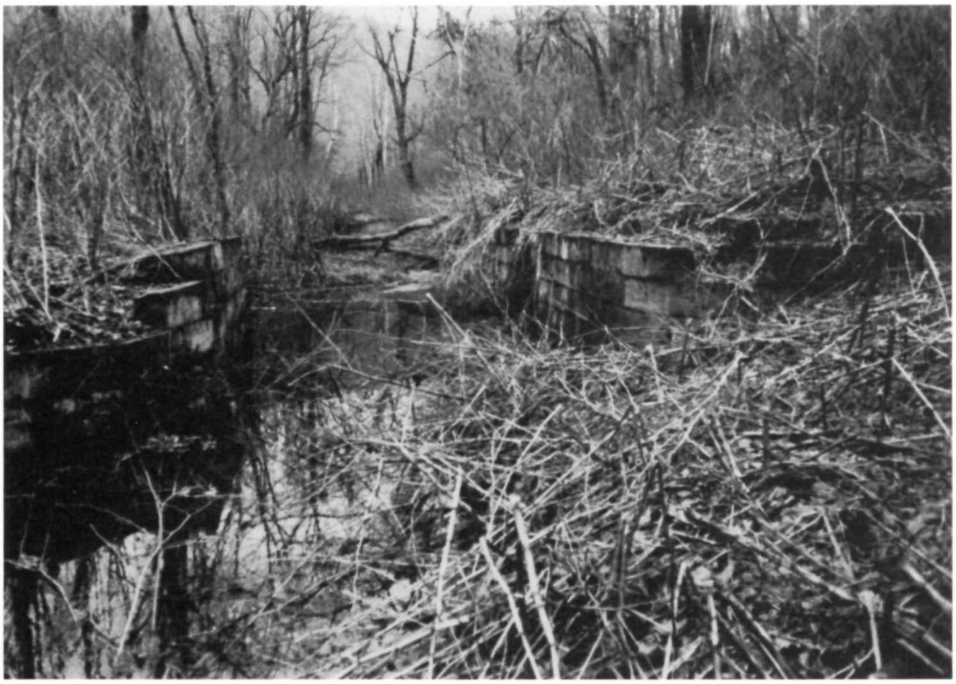


Photograph ㉞ Remains of guard lock 1 at mile 77.55



Photograph ㉟ Remnant of the southwest abutment of dam 1 at mile 77.55

Photograph ㊱ Remains of a revetment wall at mile 78.45

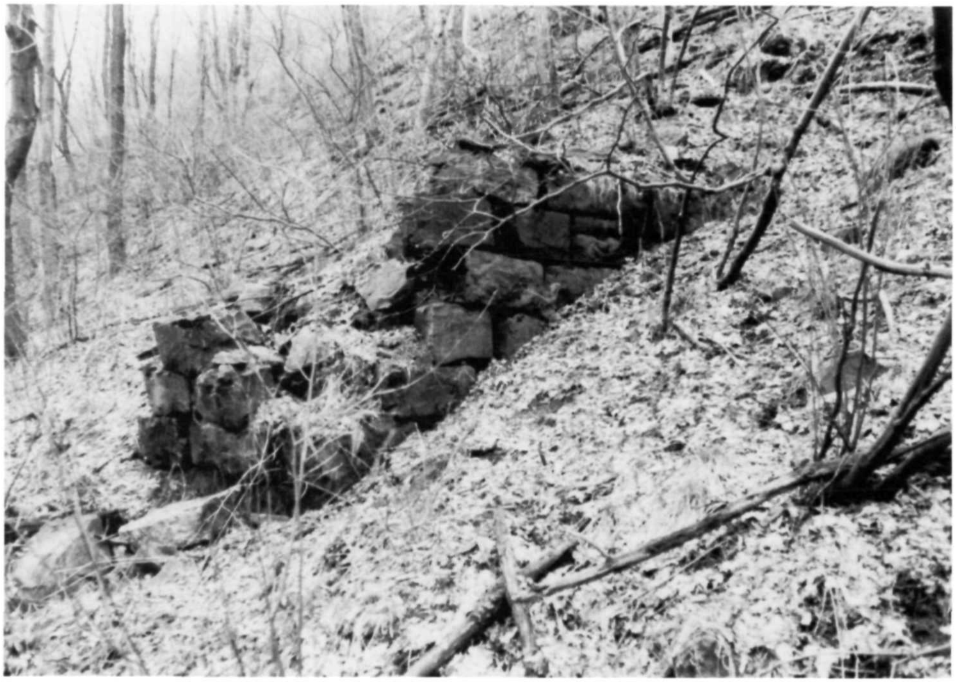


Photograph ㊲ View through lock 5 showing the intact stone walls at mile 78.75

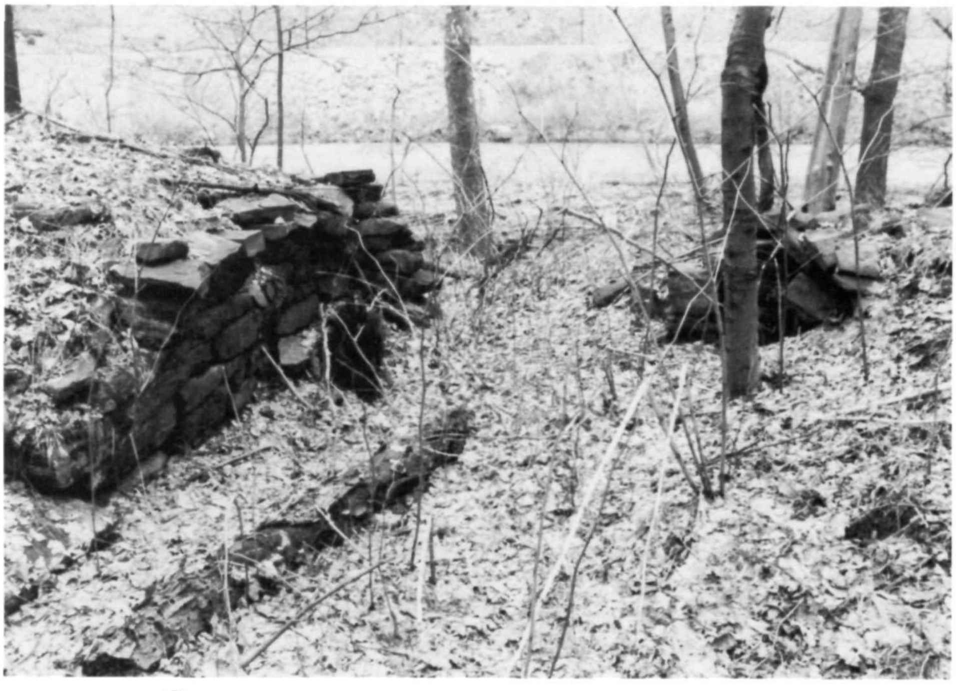
Photograph ㊳ View of the canal prism with some water at mile 78.85

Photograph ㊴ Remains of guard lock 2 at mile 79.1

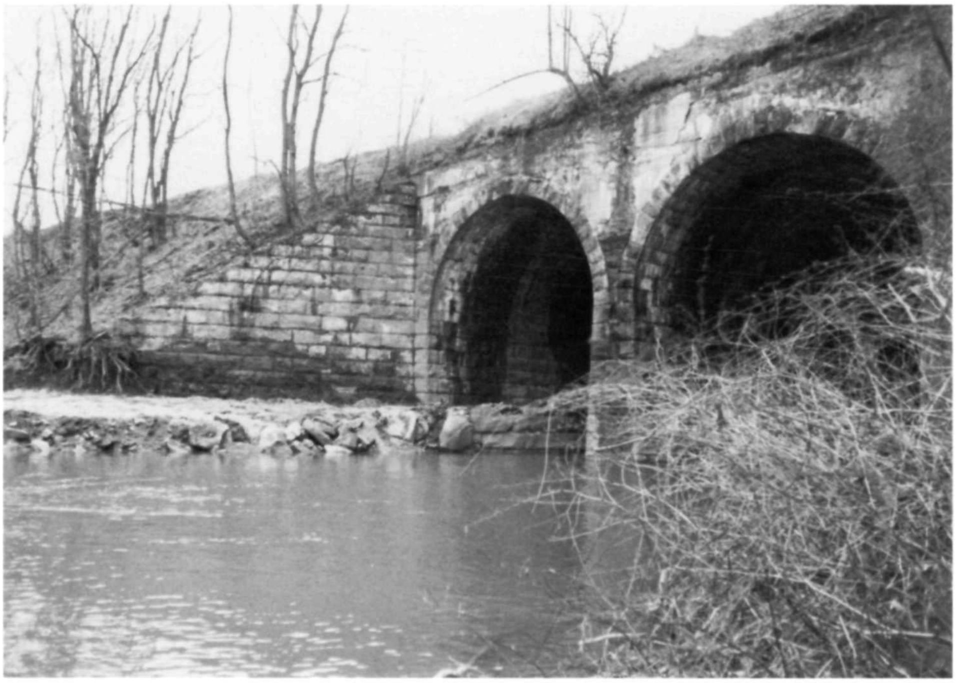
Photograph ㊵ Remains of the revetment wall above guard lock 2 and the dam at mile 79.15



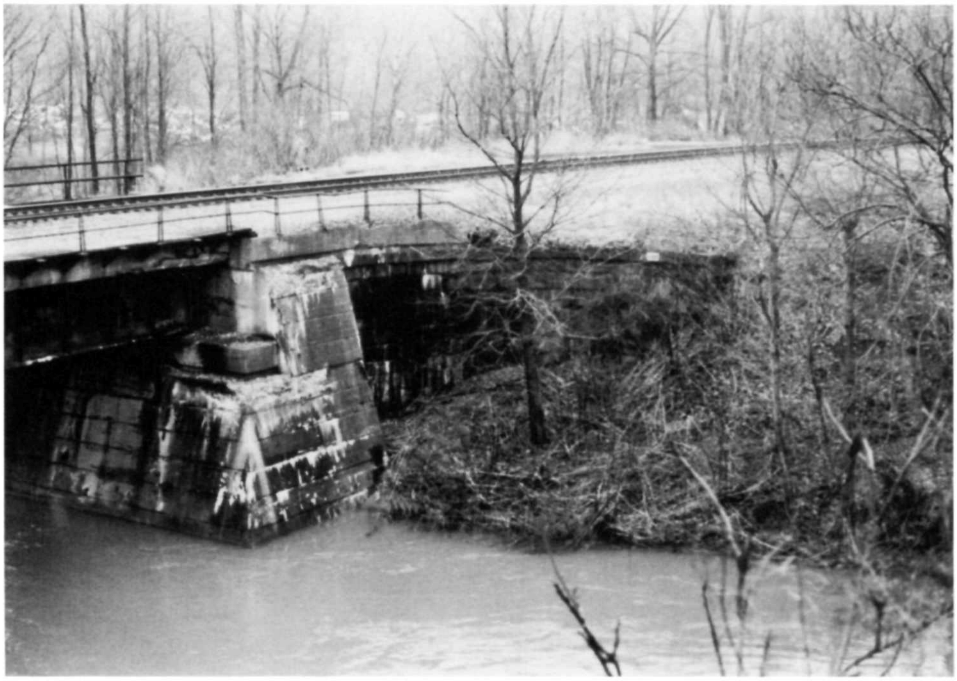
Photograph (41) Remnant of the towpath crossover bridge south abutment at mile 80.6



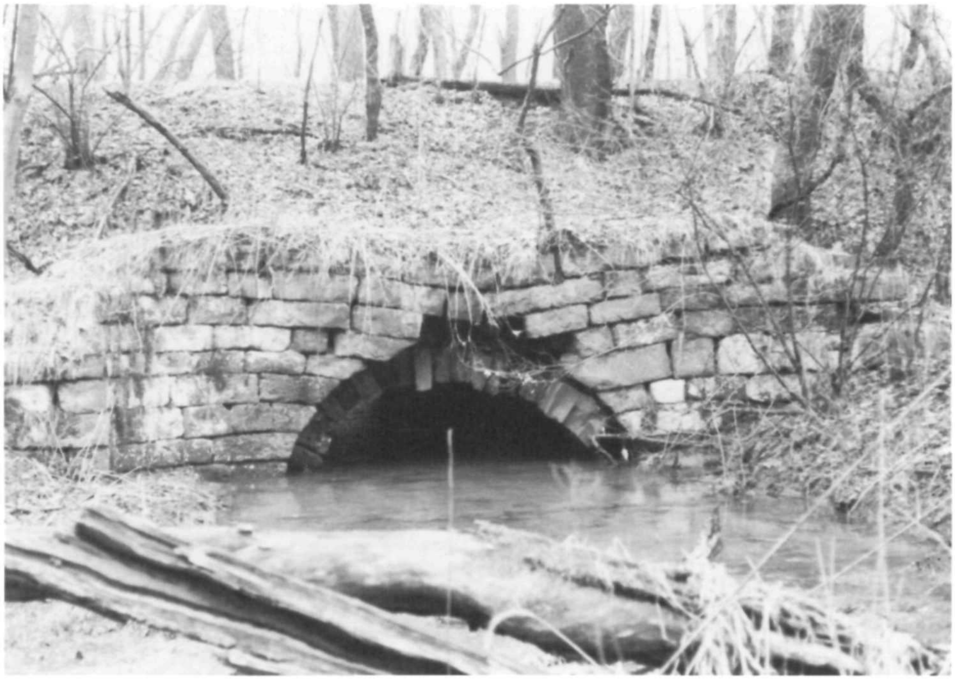
Photograph (42) Remains of the waste gate at the lower end of lock 8 at mile 81.0



Photograph ㊸ Remains of the Tubmill Creek aqueduct east abutment at mile 81.95 which has been incorporated into a later railroad bridge

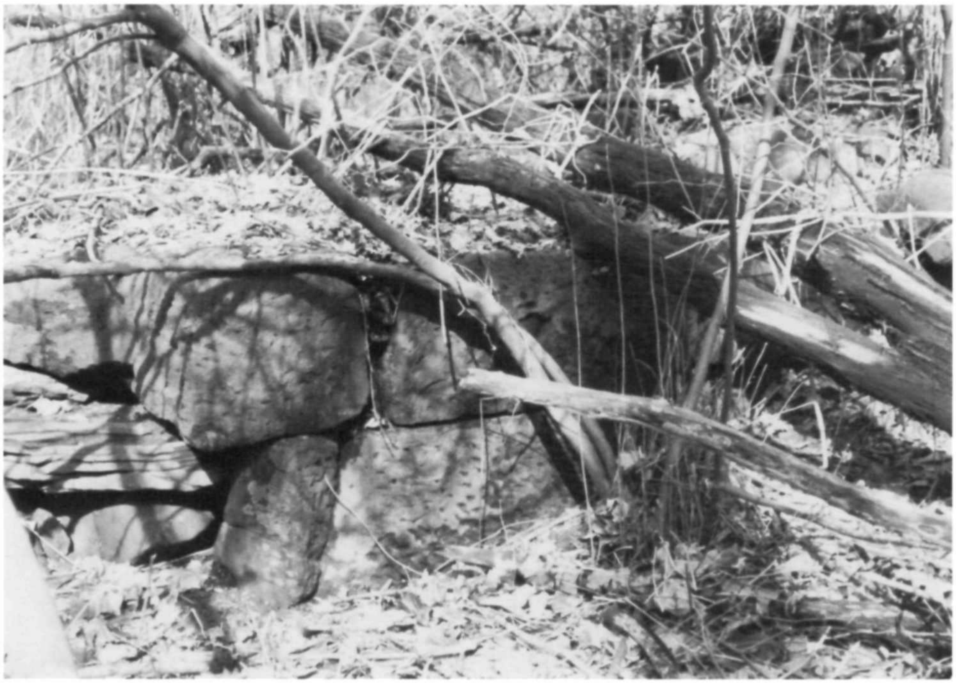


Photograph ㊹ Remains of the Lockport aqueduct wing walls and abutments at mile 84.0 which have been incorporated into a later railroad bridge

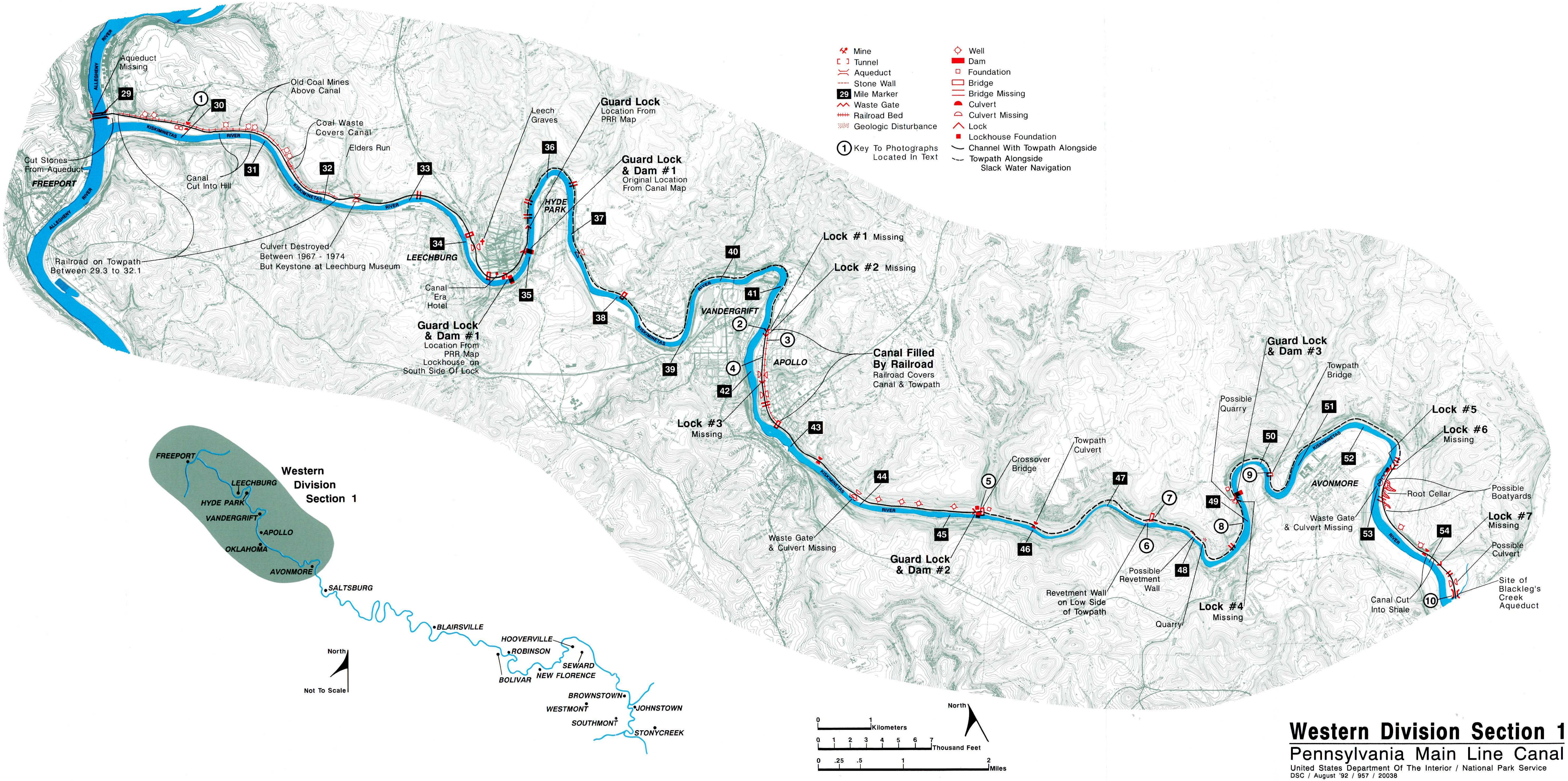


Photograph (45) Partly collapsed end of the Reed's Run canal culvert at mile 85.2

Photograph (46) Canal prism with water at mile 85.6

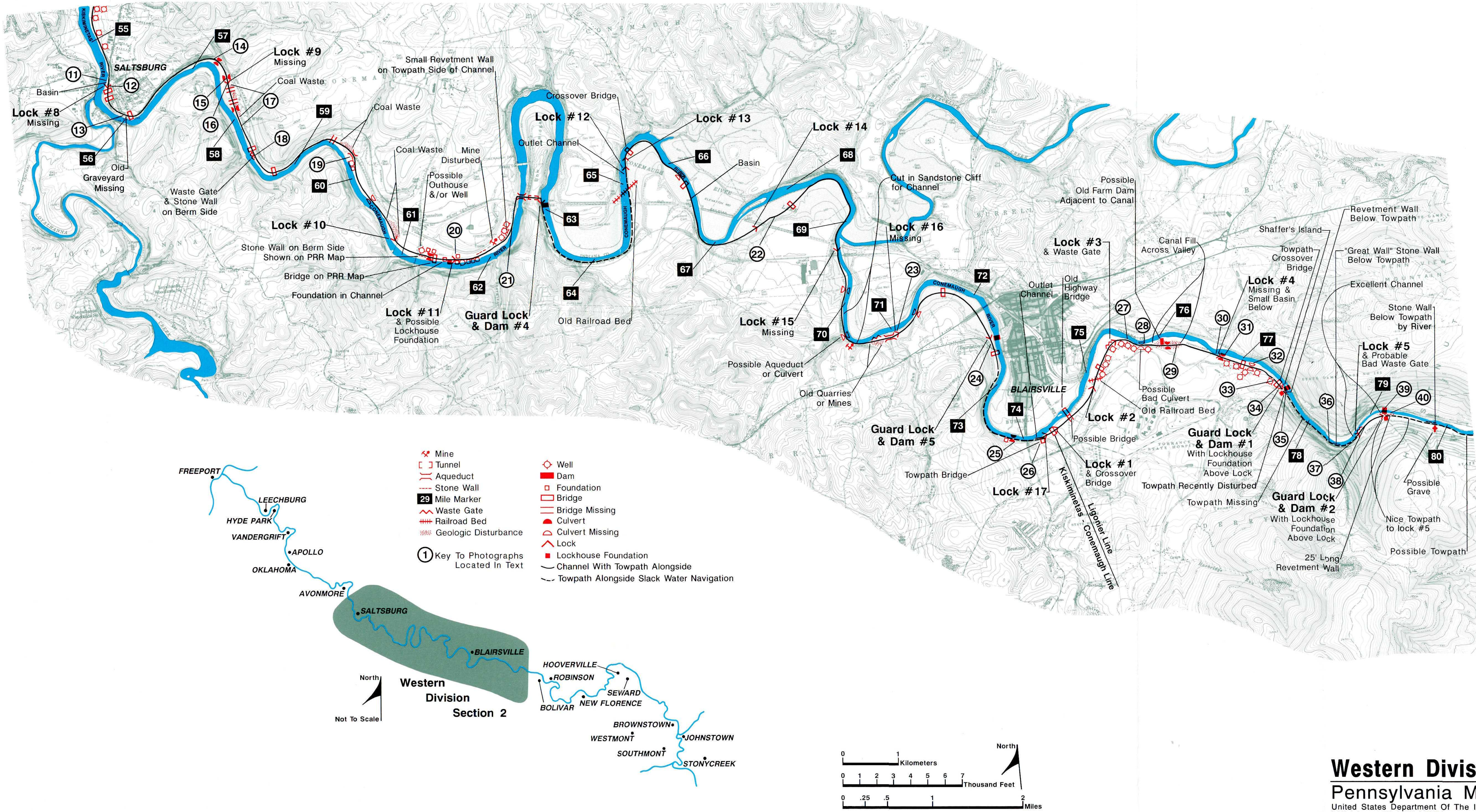


Photograph ㊼ Remains of the upper end of the guard bank at dam 4 at mile 97.5



Western Division Section 1
Pennsylvania Main Line Canal

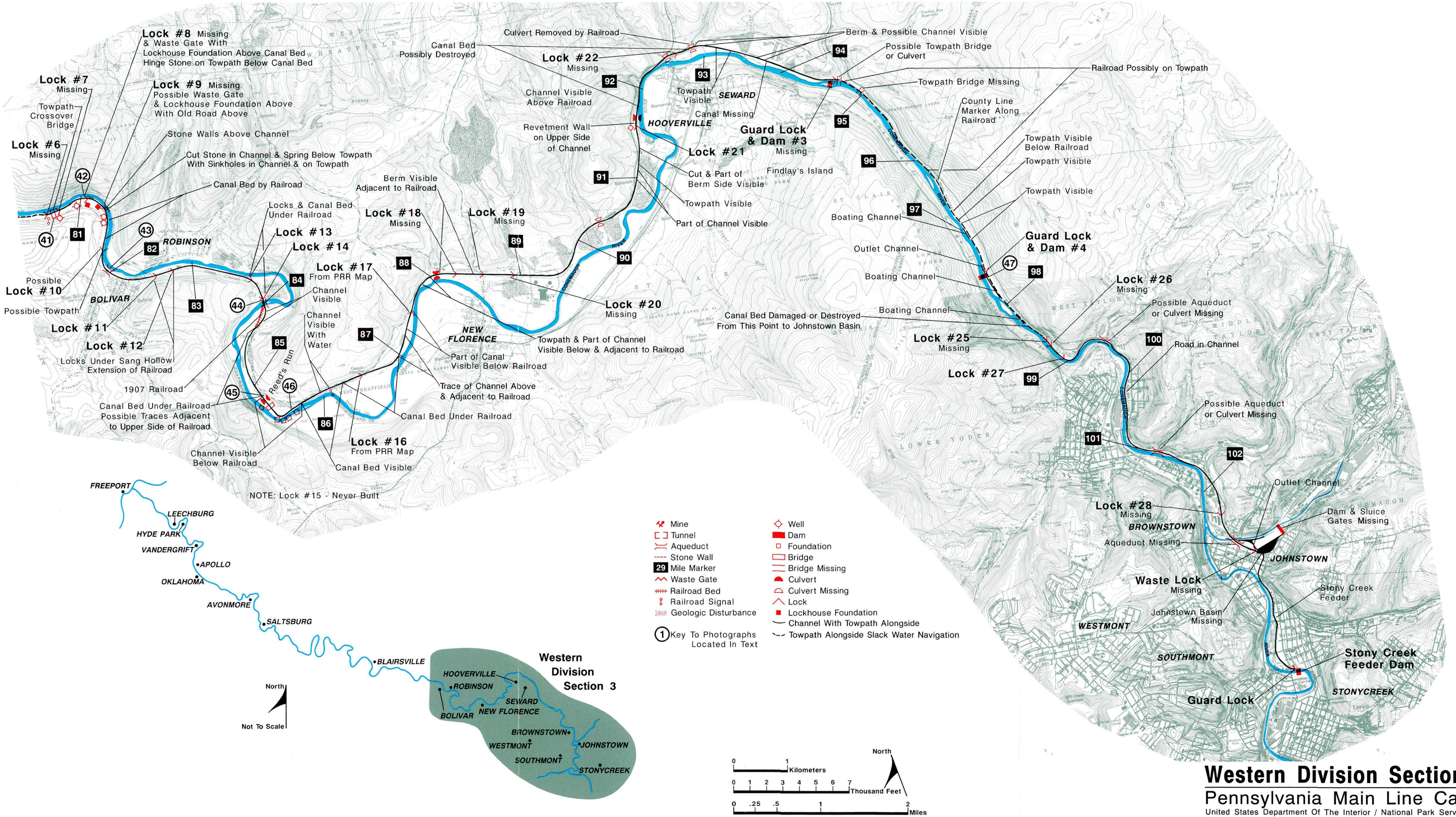
United States Department Of The Interior / National Park Service
DSC / August '92 / 957 / 20038



Western Division Section 2

Pennsylvania Main Line Canal

United States Department Of The Interior / National Park Service
DSC / August '92 / 957 / 20039



Lock #7 Missing
Towpath Crossover Bridge
Lock #6 Missing
Lock #8 Missing & Waste Gate With Lockhouse Foundation Above Canal Bed Hinge Stone on Towpath Below Canal Bed
Lock #9 Missing Possible Waste Gate & Lockhouse Foundation Above With Old Road Above
Stone Walls Above Channel
Cut Stone in Channel & Spring Below Towpath With Sinkholes in Channel & on Towpath
Canal Bed by Railroad
Possible Lock #10
Possible Towpath
Lock #11
Lock #12
Locks Under Sang Hollow Extension of Railroad
1907 Railroad
Canal Bed Under Railroad Possible Traces Adjacent to Upper Side of Railroad
Channel Visible Below Railroad
Locks & Canal Bed Under Railroad
Lock #13
Lock #14
Lock #17 From PRR Map
Channel Visible
Channel Visible With Water
Reed's Run
Lock #16 From PRR Map
Canal Bed Visible
Canal Bed Under Railroad
NOTE: Lock #15 - Never Built
Berm Visible Adjacent to Railroad
Lock #18 Missing
Lock #19 Missing
Trace of Channel Above & Adjacent to Railroad
Part of Canal Visible Below Railroad
Towpath & Part of Channel Visible Below & Adjacent to Railroad
Lock #20 Missing
Canal Bed Possibly Destroyed
Culvert Removed by Railroad
Lock #22 Missing
Channel Visible Above Railroad
Revetment Wall on Upper Side of Channel
Lock #21
Cut & Part of Berm Side Visible
Towpath Visible
Part of Channel Visible
Towpath Visible
Canal Missing
Berm & Possible Channel Visible
Possible Towpath Bridge or Culvert
Railroad Possibly on Towpath
Towpath Bridge Missing
County Line Marker Along Railroad
Guard Lock & Dam #3 Missing
Findlay's Island
Towpath Visible Below Railroad
Towpath Visible
Towpath Visible
Boating Channel
Outlet Channel
Boating Channel
Guard Lock & Dam #4
Boating Channel
Canal Bed Damaged or Destroyed From This Point to Johnstown Basin
Lock #26 Missing
Possible Aqueduct or Culvert Missing
Lock #25 Missing
Lock #27
Road in Channel
Possible Aqueduct or Culvert Missing
Outlet Channel
Dam & Sluice Gates Missing
Lock #28 Missing
Aqueduct Missing
Waste Lock Missing
Johnstown Basin Missing
Stony Creek Feeder
Stony Creek Feeder Dam
Guard Lock
ROBINSON
BOLIVAR
NEW FLORENCE
HOOVERVILLE
SEWARD
BROWNSTOWN
JOHNSTOWN
WESTMONT
SOUTHMONT
STONYCREEK
41
42
43
44
45
46
47
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
Mine
Tunnel
Aqueduct
Stone Wall
29 Mile Marker
Waste Gate
Railroad Bed
Railroad Signal
Geologic Disturbance
① Key To Photographs Located In Text
Well
Dam
Foundation
Bridge
Bridge Missing
Culvert
Culvert Missing
Lock
Lockhouse Foundation
Channel With Towpath Alongside
Towpath Alongside Slack Water Navigation
0 1 Kilometers
0 1 2 3 4 5 6 7 Thousand Feet
0 .25 .5 1 2 Miles
North
FREEPORT
LEECHBURG
HYDE PARK
VANDERGRIFT
APOLLO
OKLAHOMA
AVONMORE
SALTSBURG
BLAIRSVILLE
HOOVERVILLE
ROBINSON
SEWARD
NEW FLORENCE
BOLIVAR
BROWNSTOWN
WESTMONT
JOHNSTOWN
SOUTHMONT
STONYCREEK
Western Division Section 3
North
Not To Scale

Western Division Section 3

Pennsylvania Main Line Canal

United States Department Of The Interior / National Park Service
DSC / August '92 / 957 / 20040

JUNIATA DIVISION

The Pennsylvania Mainline Canal Juniata Division, in the three counties covered by the America's Industrial Heritage Project area, runs for approximately 58.4 miles between canal mile 1 at Hollidaysburg to mile 36.4 immediately above Huntingdon where the mile numbers begin to repeat to mile 22 below Newton Hamilton. Segments of the canal prism which occasionally contain water, intermittent portions of the towpath as well as the ruins of locks, culverts, aqueduct piers and abutments, towpath bridge piers and abutments, and dam abutments can be periodically found along this area of the canal. Relatively intact features are scattered along the route, but at such distances that difficulty would be incurred to combine them for interpretive purposes. Basically, little remains of the canal in Huntingdon County, while some features can be seen in Blair County. The best segment is found in Mifflin County in the Newton Hamilton area. One of the best preserved segments of canal prism and towpath is found between mile 7.6 to 7.8. A small, well preserved section of the towpath is located between mile 15.9 and 16.0. Two, flat lintel stone towpath culverts, which are in good condition, can be found at miles 22.9 and 23.1. The greatest concentration of canal features with some intactness are found just down stream from Newton Hamilton. These items include 14,000 feet of the canal prism, guard lock 25 associated with the Aughwick feeder dam, lift locks 24 and 26, a canal basin, remains of the Beaver Creek dam aqueduct, remains of a public bridge, and the ruins of a locktender's house. An intact locktender's house along with a visible portion of canal is located just west of Newton Hamilton. Consequently, any preservation/restoration effort should be focused in this area. All photographs were taken in January/February 1991.

Hollidaysburg to Mile 10.0 — Nothing remains of the canal or its basin at Hollidaysburg. A remnant of the Eastern Dam on the Juniata River can be seen about 1.4 miles south of Hollidaysburg (Photograph 48). A reservoir behind this dam supplied water for the canal, but this body of water was drained in February 1882 when the dam was breached. The feeder channel between the reservoir and the canal was subsequently covered by a railroad grade. A remnant of the canal prism is first found between mile 1.8 and 2.5. That area of channel contains some water. The prism with water can be next observed between mile 3.0 and 3.25. Again a visible channel appears between miles 4.5 and 7.0. Water appears in that length of line at mile 6.5 (Photograph 49) and at mile 6.8. One of the best preserved prism and towpath areas is found between mile 7.6 to 7.8 (Photograph 50). Between mile 8.2 and 9.2 the Juniata River served as slackwater navigation. Only scattered remnants of the towpath remain in this area. The final section of visible channel in the first ten miles is located between mile 9.2 and 9.4. No remains of locks or other canal features are to be found in this length of the canal.

Mile 10.0 to 20.0 — Slackwater navigation began just before mile 10.0 and continued to mile 12.5. The Three Mile Dam across the Juniata River at mile 12.3 regulated the water for the slackwater navigation. Remains of this dam include the northeast stone abutment (Photograph 51) and a remnant of the southwest abutment. One of the stone abutments for the towpath bridge at mile 12.5 can be seen at the site of outlet lock 33 (Photograph 52). Slackwater navigation began again at mile 12.5 to mile 13.35. The west abutment of the towpath bridge leading to canal navigation remains at mile 13.35 along with a trace of the towpath bridge stone pier in the river. For approximately one-half mile beginning at mile 13.35, the canal towpath exists (Photograph 53). Little vestige of the canal can be found in Williamsburg. Downstream at mile 15.05 some stonework remains at the upper end of lift lock 30. A small, but well preserved, section of the towpath is located between mile 15.9 and 16.0. The stone abutments and piers of the towpath bridge at mile 16.1, where slack water navigation occurred, are present, but they have been incorporated into a later railroad bridge (Photograph 54). At mile 16.35 the stone northwest abutment of guard lock 27 marks the end of the short segment of slack water navigation. Some stonework at mile 16.8 indicates the area where a feeder stream met the canal at a juncture of slackwater navigation. Canal boats used this slackwater for less than a mile to mile 17.6. At that point Schmucker's Dam regulated the water level for this slack water segment. The stone abutments for Schmucker's Dam and the stone side walls of guard lock 25 are still present (Photographs 55 and 56). Again the canal returned to slack water navigation between miles 18.05 and 19.3. At mile 18.05, the remains of the stone walls of guard lock 24 have been covered with garbage and fill. Nothing remains of Porter's Dam at mile 19.3, but the stone walls of guard lock 23 are present (Photograph 57).

Mile 20.0 to 30.0 — In this segment a railroad grade has destroyed the canal in a number of locations. Where it remains visible, the canal tends to be a shallow depression. Two well preserved flat lintel stone culverts at miles 22.9 and 23.1 are the best features in this canal segment. At mile 20.45 the remnant of an abutment wall and a wing wall exist from the Small Aqueduct (Photograph 58). Nearby, at mile 20.55, the abutment walls and a pier remain from the Large Aqueduct (Photograph 59), but this stonework has been incorporated into a railroad bridge. A few stones form the vestige of lift lock 21 at mile 20.75 (Photograph 60). The foundation stones from a locktender's house are located at mile 20.8. Several stones mark the site of lift lock 20 at mile 20.85 (Photograph 61). Only a shallow depression at mile 22.55 reveals the site of outlet lock 16 (Photograph 62). The remains of a stone revetment wall are found at mile 22.7. Well preserved towpath culverts with a flat lintel stone covers are located at miles 22.9 and 23.1 (Photographs 63 and 64). A remnant of another canal culvert remains at mile 23.2. Crumbling stones mark the site of the Little Water Street Dam (Photograph 65). A stone wall exists at the Water Street inlet at mile 25.85 (Photograph 66). At mile 28.2 from the Borough of Alexandria to Porter Township a slight depression once contained the canal prism (Photograph 67). Lift lock 9, at mile 29.5 retains a partially intact stone wall at one end, while at the other end the wall has collapsed (Photograph 68).

Mile 30.0 to 36.4 — In this segment upstream from Huntingdon, little remains of the canal. Some areas have been filled and leveled as that from mile 30.2 to 30.9 while one section down from mile 31 has a road constructed over it, and the region between miles 32.8 and 34 has been flooded. Beginning at mile 30.0 to mile 30.2 the canal channel appears as a slight depression. At mile 30.15 scattered stones mark the location of an aqueduct abutments and a pier base. Between mile 30.2 and 30.9 the canal channel has been filled and the towpath levelled. From mile 30.9 to 31.6 the canal channel is visible, but a road has been constructed atop the towpath. In this segment some scattered stones remain from lift lock 7 while lift lock 8 has been buried. A depressed section with a few stones indicates the site of lift lock 6. Slackwater navigation occurred between mile 31.6 and 32.25. The towpath used to pull boats along this area has disappeared. At the end of the slackwater segment, at mile 32.25, nothing remains of the Petersburg dam. Guard lock 5 at mile 32.25 has mostly been filled with earth, but the stones from the lock sides are still in place (Photograph 69). Water remains in the canal channel between mile 32.25 and 32.9 (Photograph 70). Beginning at mile 32.9 to 34.0 the canal and its features — a towpath bridge, outlet lock 4, Piper's dam, and guard lock 3 — have been flooded. Only with difficulty can the canal channel be identified between mile 34.0 and 34.75. In that area a slight depression remains at the site of lift lock 2 (Photograph 71) and some stones mark the location of lift lock 1 (Photograph 72). In the slackwater navigation segment which covers the section from mile 34.75 to 36.4, railroad track has destroyed the towpath through much of the distance. The towpath is only visible between mile 36.1 and 36.4.

Mile 0 above Huntingdon to mile 22 below Newton Hamilton — in this final canal segment little remains of the canal except for the Newton Hamilton area. The Pennsylvania Railroad track has obliterated much of the canal remains through Huntingdon. Just south of the canal between mile 5.0 and 6.0 the abutment remains of the Raytown feeder dam are visible along with the stone remnants of the guard lock at that dam (Photograph 73). A locktender's house is located just west of Newton Hamilton. A number of well preserved features are found just east of Newton Hamilton beginning at mile 21.8. These remains include 14,000 of the canal prism, guard lock 25 associated with the Aughwick feeder dam, lift locks 26 and 24, a canal basin, remains of the Beaver Creek dam aqueduct, remains of a public bridge, and the ruins of a locktender's house.

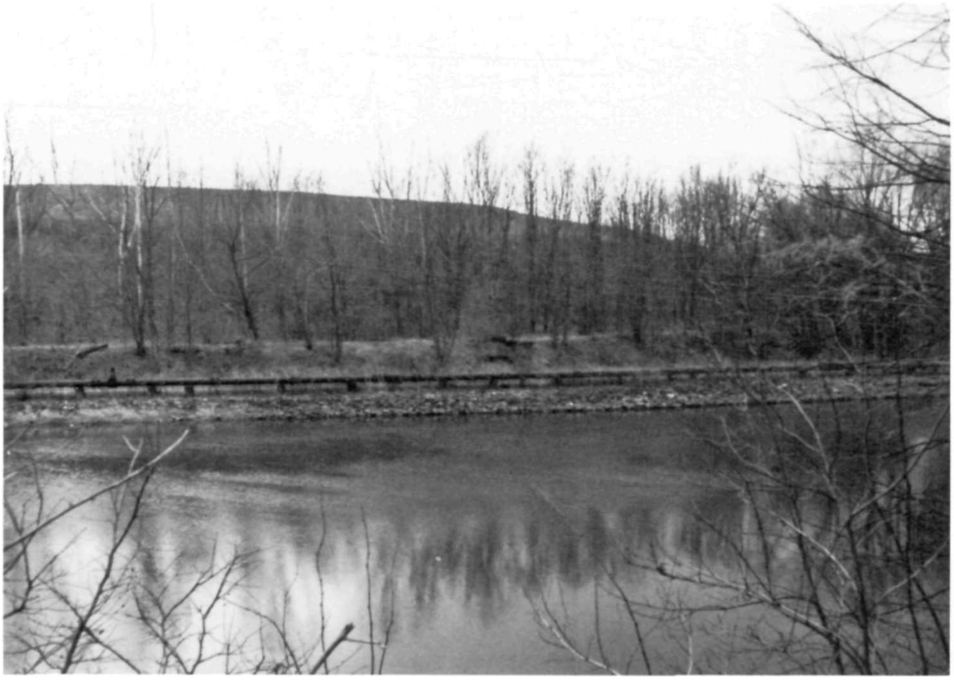
Photograph (48) Remains of the top of the East Reservoir dam used as a feeder for canal water at Hollidaysburg

Photograph ㊾ Remains of the canal channel with some water at mile 6.5 below Hollidaysburg

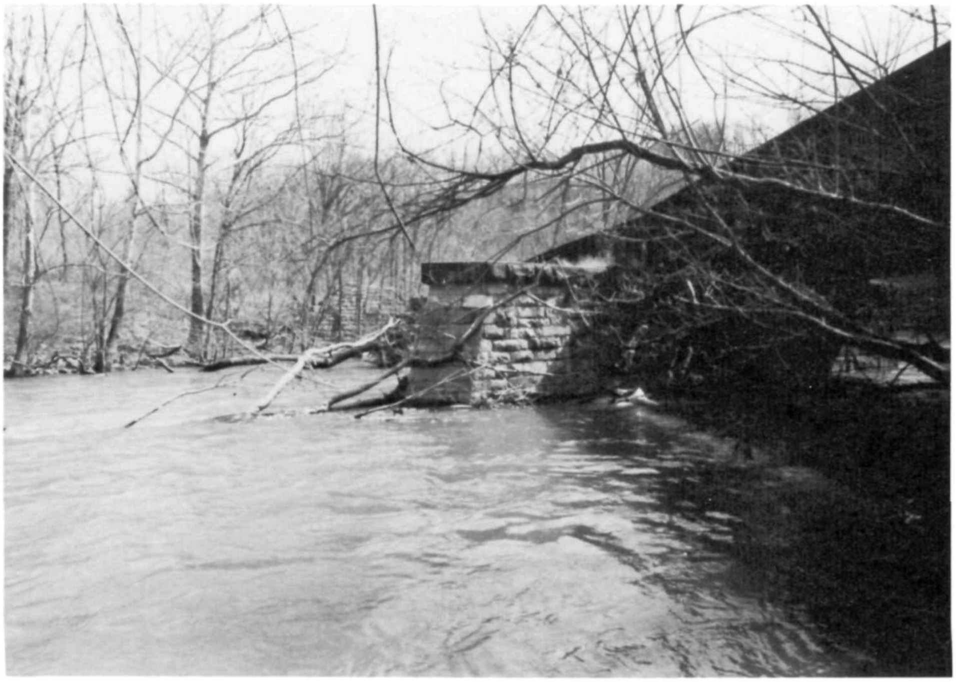
Photograph ㊿ Site of the canal channel at mile 7.8 below Hollidaysburg

Photograph (51) Northeast abutment of Three Mile Dam at mile 12.3 below Hollidaysburg

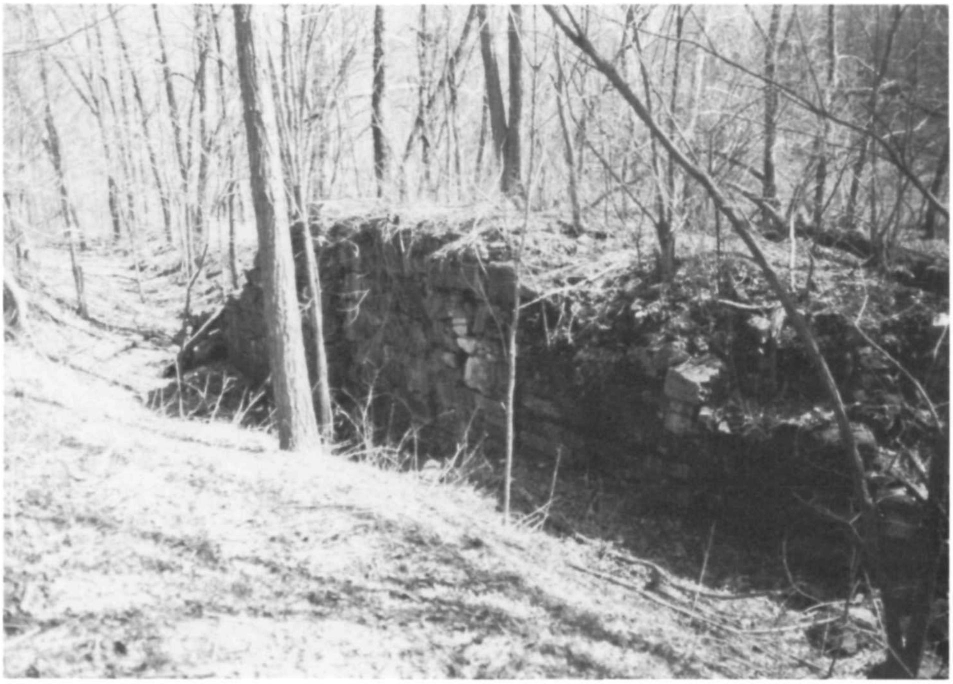
Photograph (52) Site of outlet lock 33 with the towpath bridge abutment on the right at mile 12.5 below Hollidaysburg



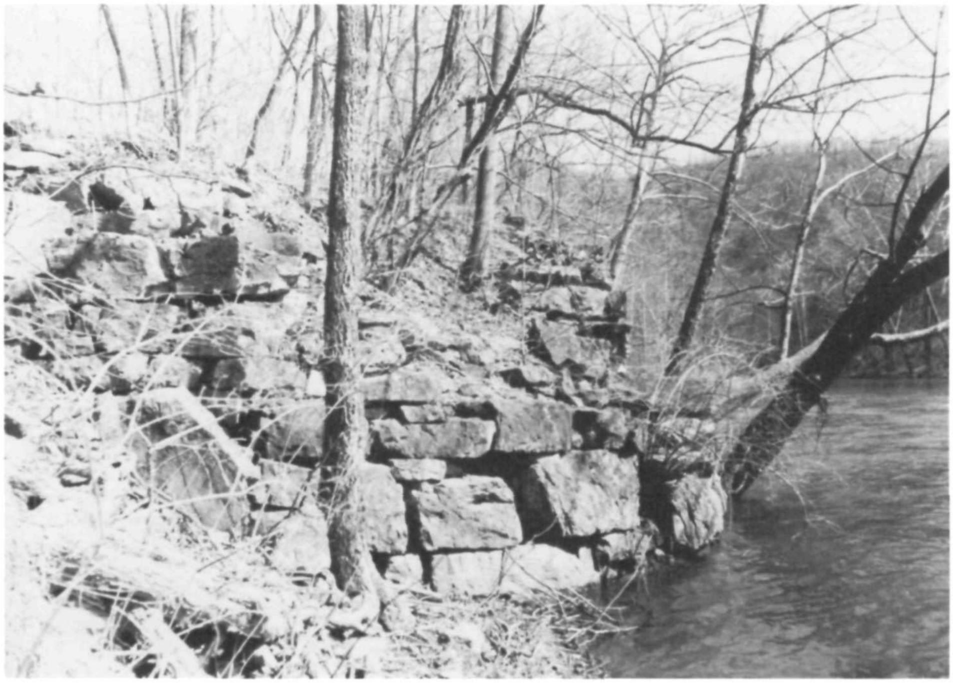
Photograph (53) A view of the towpath across the Juniata River and above the pipeline at mile 13.5 below Hollidaysburg



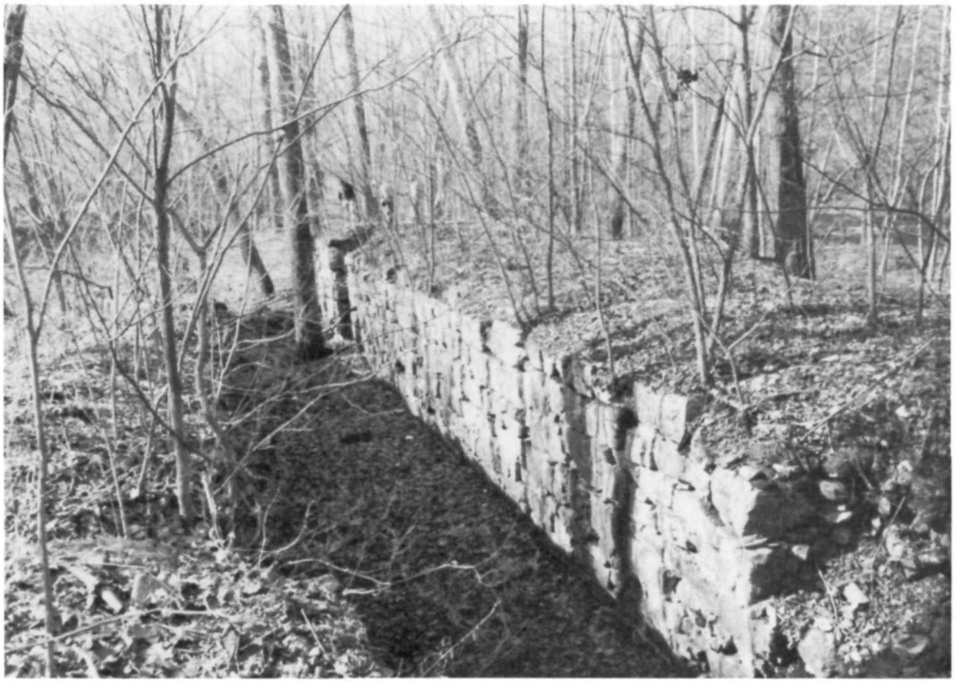
Photograph (54) Remains of the towpath bridge west abutment at mile 16.1 below Hollidaysburg which has been incorporated into a railroad bridge



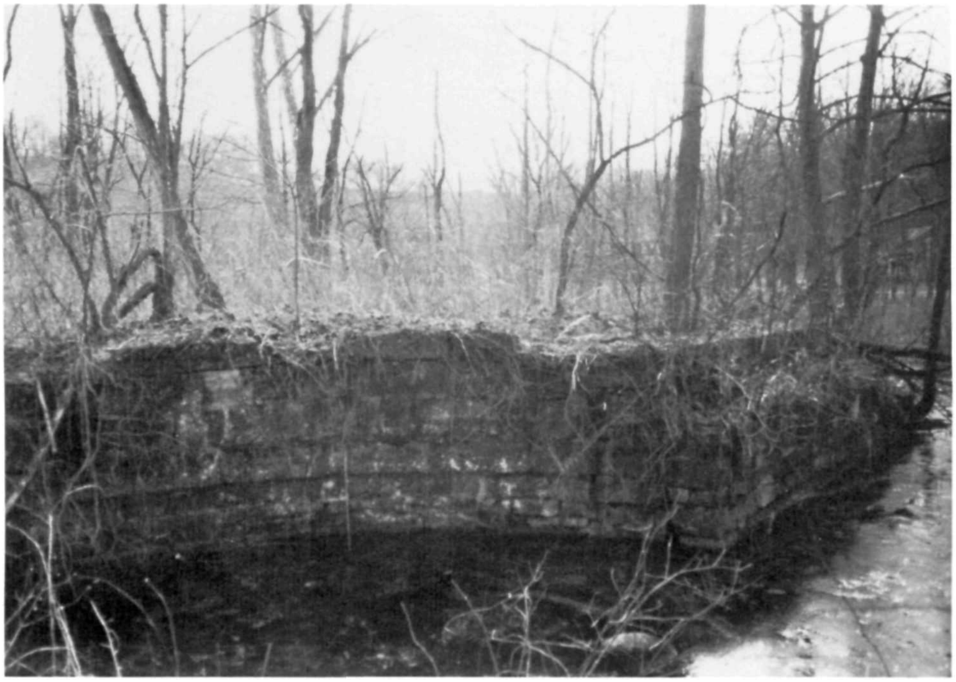
Photograph (55) Remnant of the south wall of guard lock 25 at Schmucker's Dam at mile 17.6 below Hollidaysburg



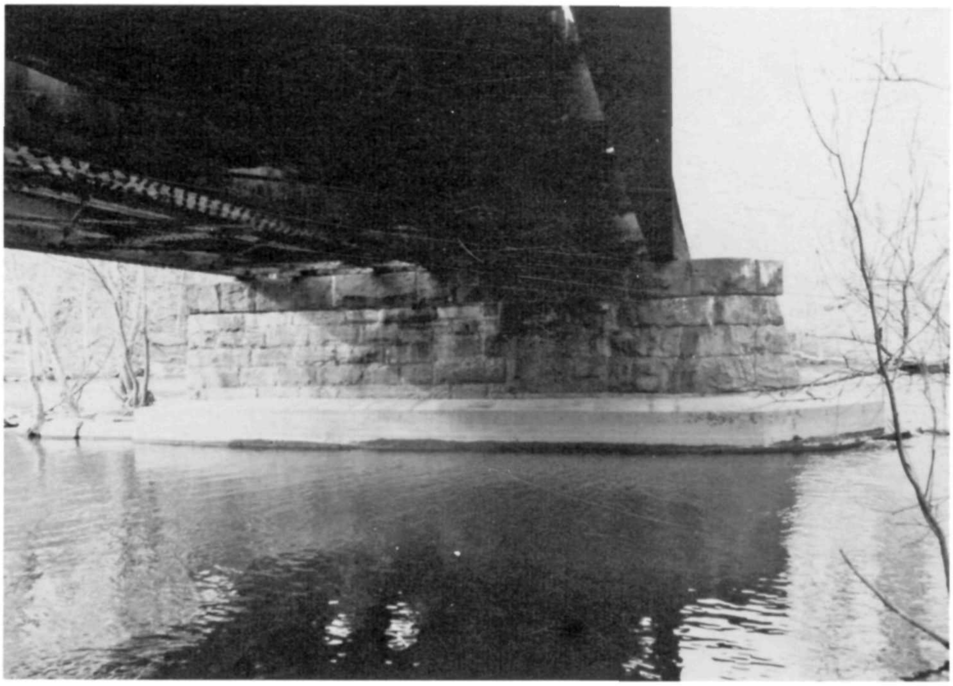
Photograph (56) Remains of the Schmucker's Dam north abutment at mile 17.6 below Hollidaysburg



Photograph (57) Remains of guard lock 23 at Porter's Dam at mile 19.3 below Hollidaysburg

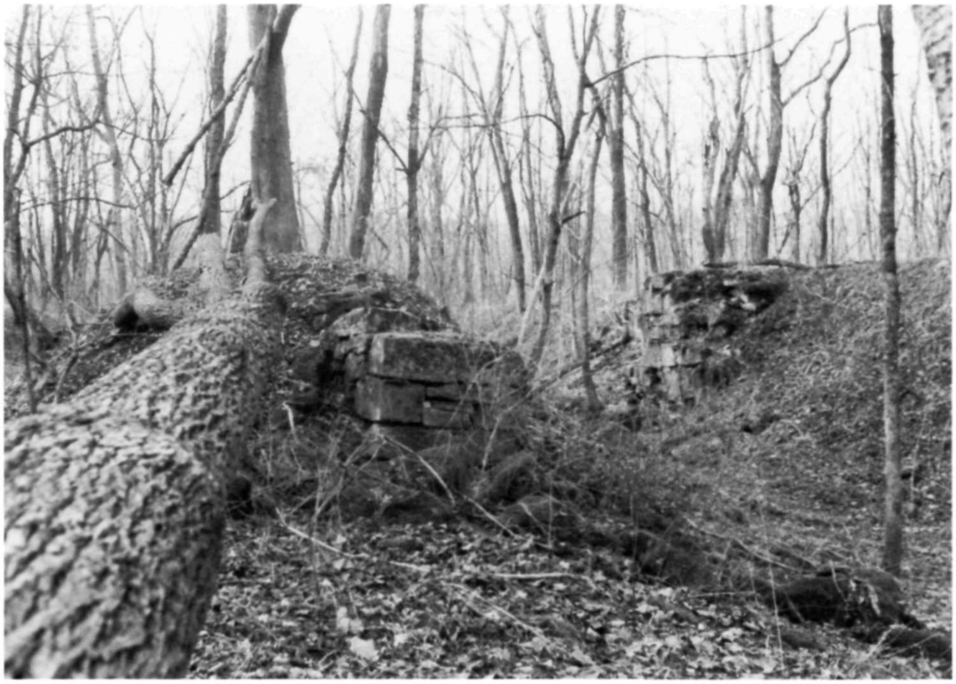


Photograph (58) Remnant of a wing wall and abutment at Small Aqueduct at mile 20.45 below Hollidaysburg



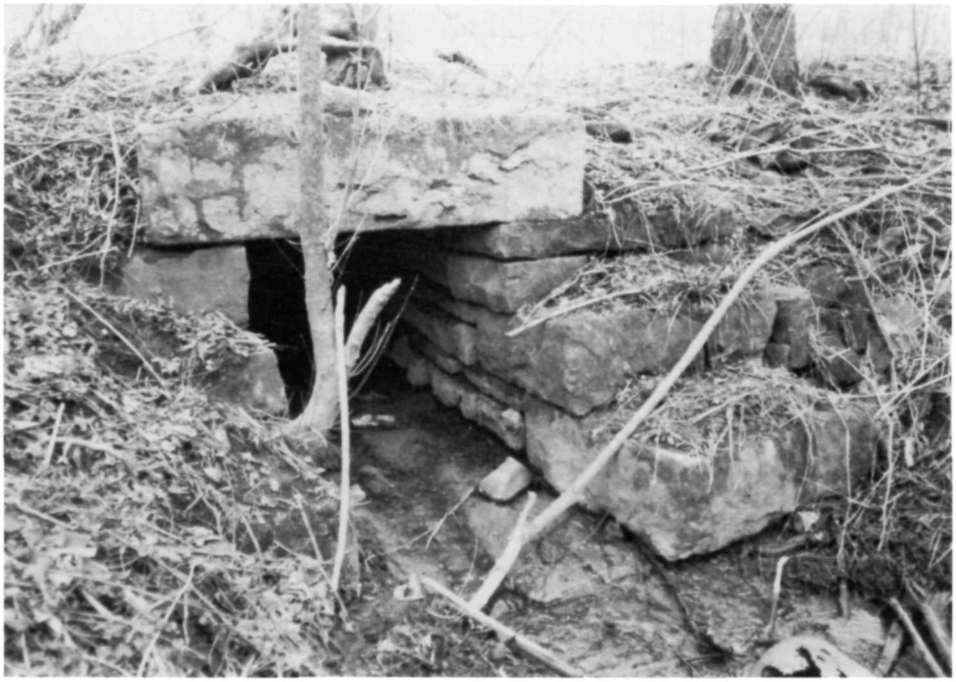
Photograph (59) A pier of Large Aqueduct at mile 20.55 below Hollidaysburg which has been incorporated into a railroad bridge

Photograph (60) Site of lift lock 21 at mile 20.75 below Hollidaysburg

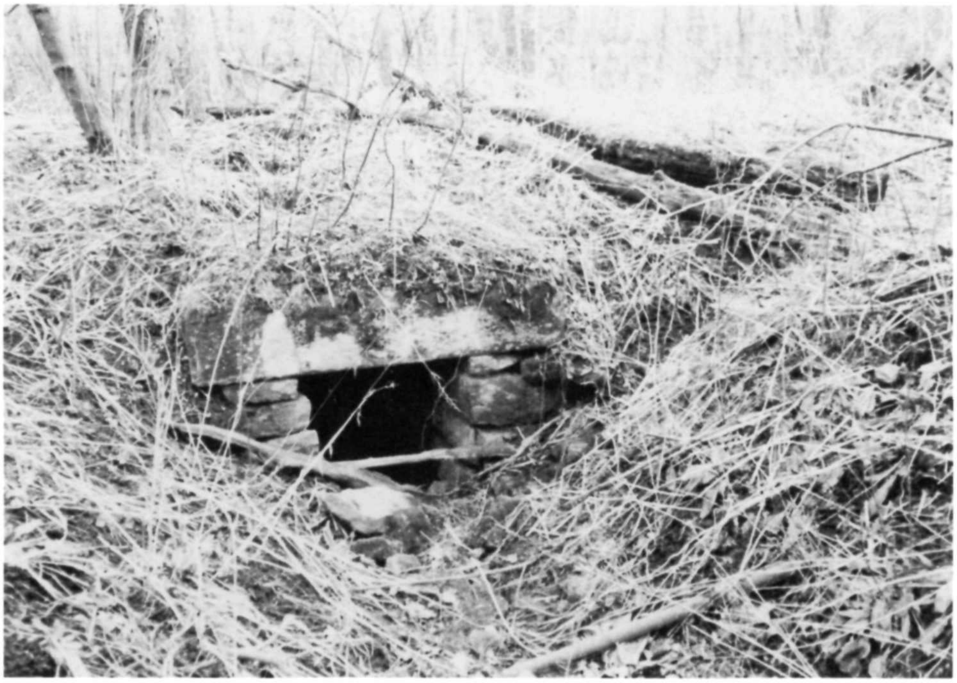


Photograph (61) The remnant of lift lock 20 at mile 20.85 below Hollidaysburg

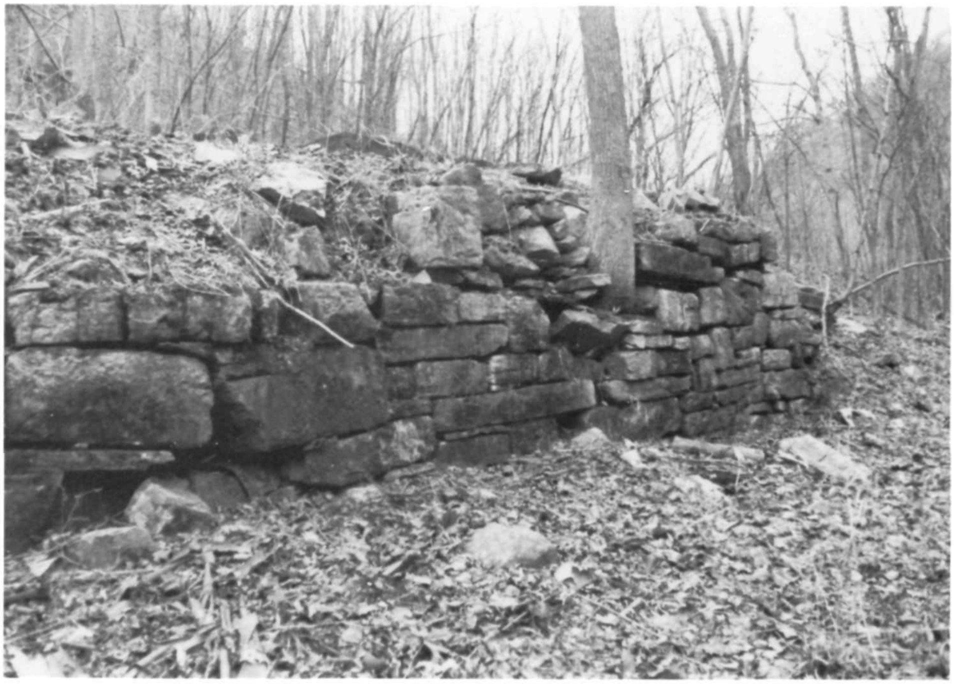
Photograph (62) A shallow depression marks the site of outlet lock 16 at mile 22.55 below Hollidaysburg



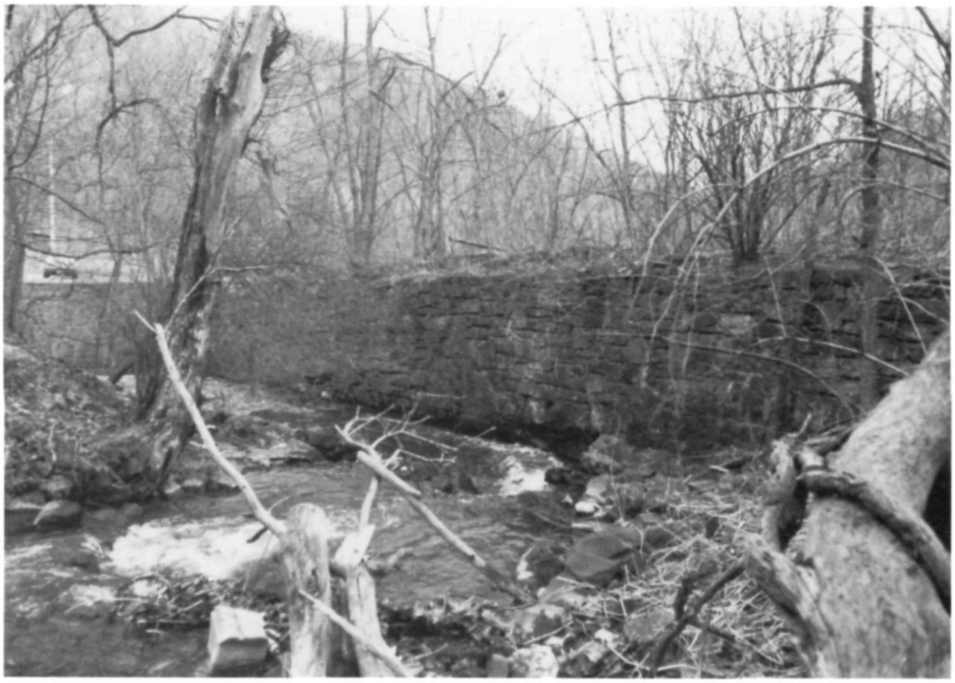
Photograph (63) A well preserved flat lintel stone towpath culvert at mile 22.9 below Hollidaysburg



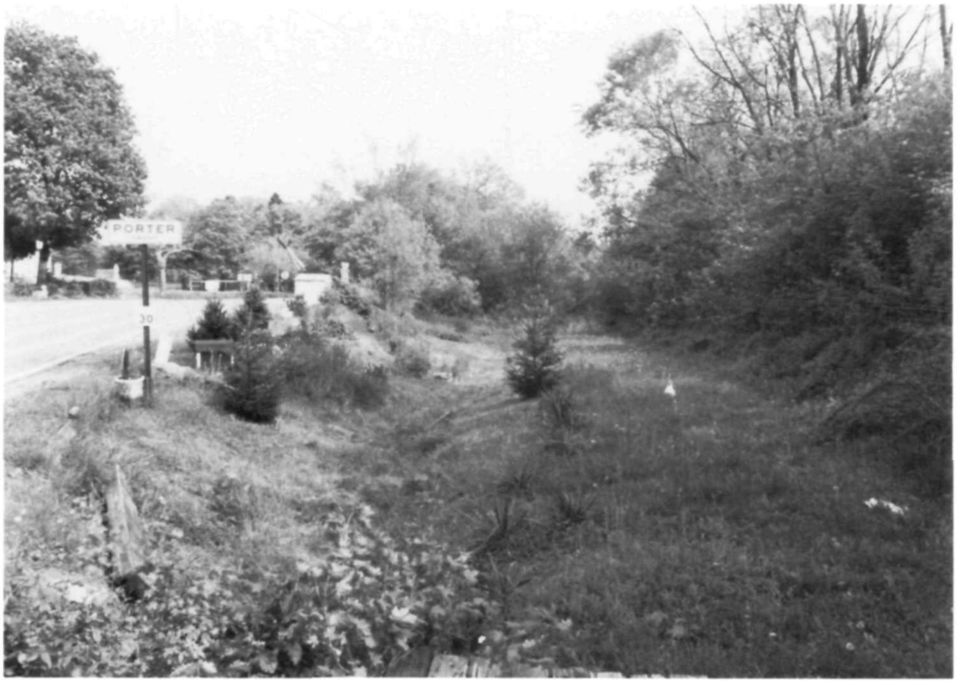
Photograph (64) A well preserved flat lintel stone towpath culvert at mile 23.1 below Hollidaysburg



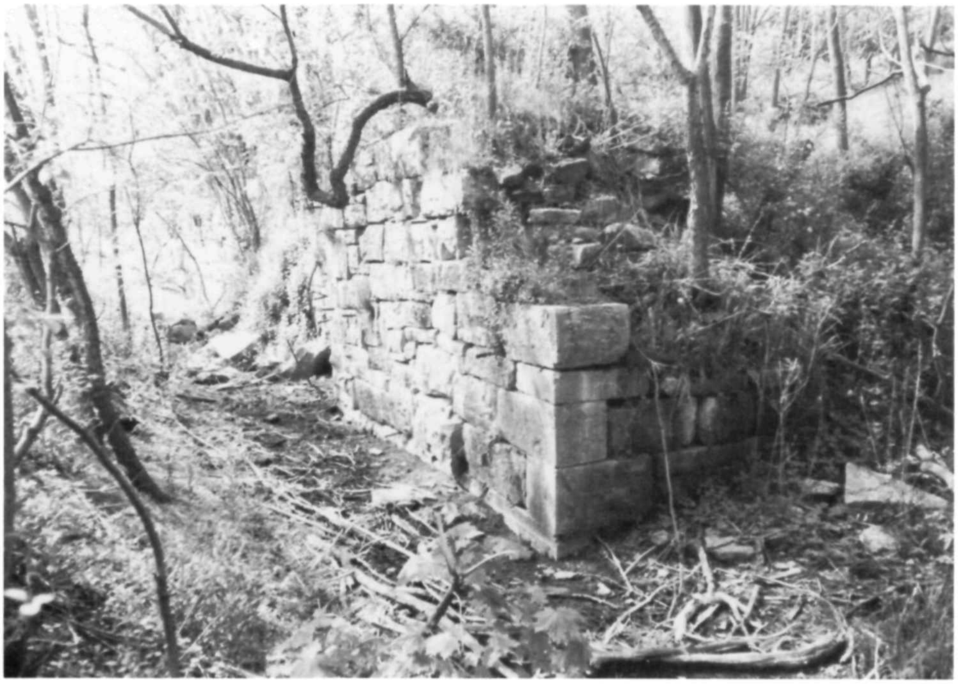
Photograph (65) Crumbling stone remains of the Little Water Street Dam northwest abutment at mile 24.1 below Hollidaysburg



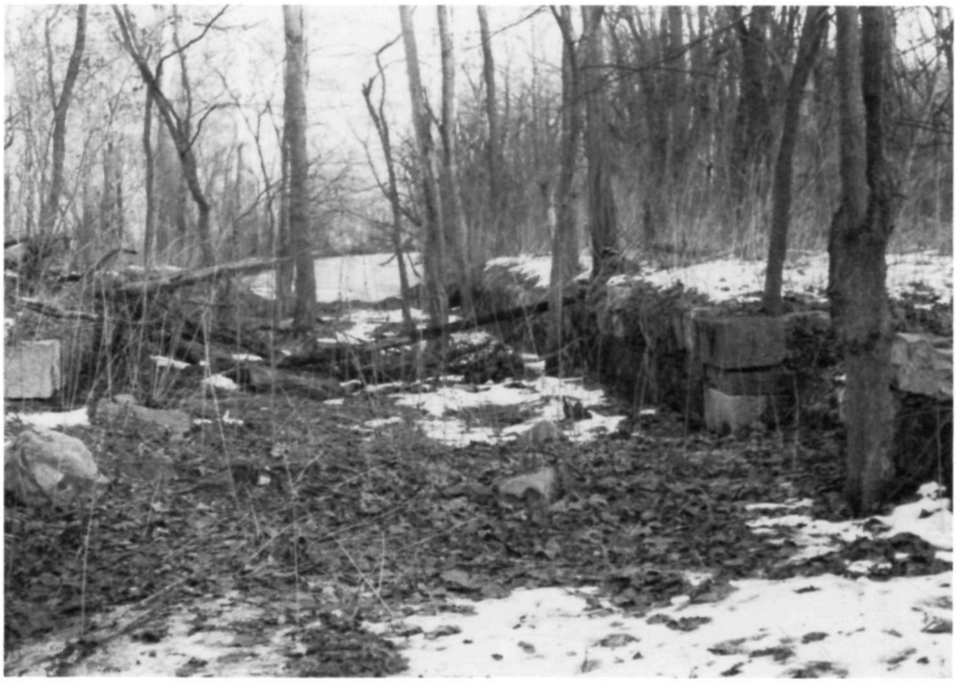
Photograph (66) A well preserved stone wall at the Water Street inlet at mile 25.85 below Hollidaysburg



Photograph ㊼ Remains of the canal channel along side of a road between Alexandria Borough and Porter Township at mile 28.2 below Hollidaysburg



Photograph ㊽ Partial remains of a stone side wall at lift lock 9 at mile 29.5 below Hollidaysburg

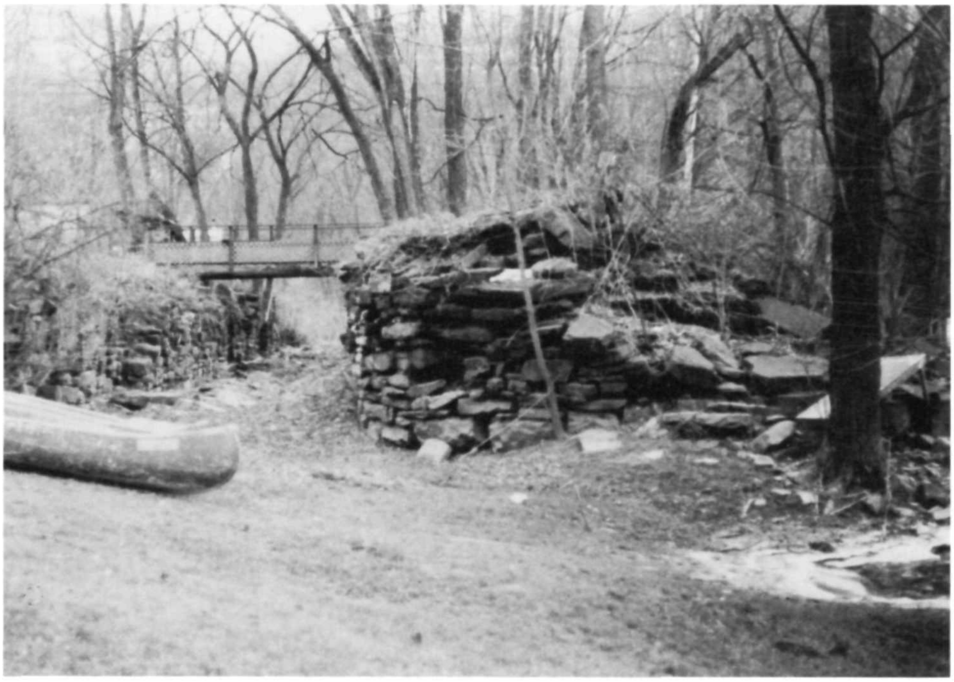


Photograph (69) View down the remains of guard lock 5 at mile 32.25 below Hollidaysburg

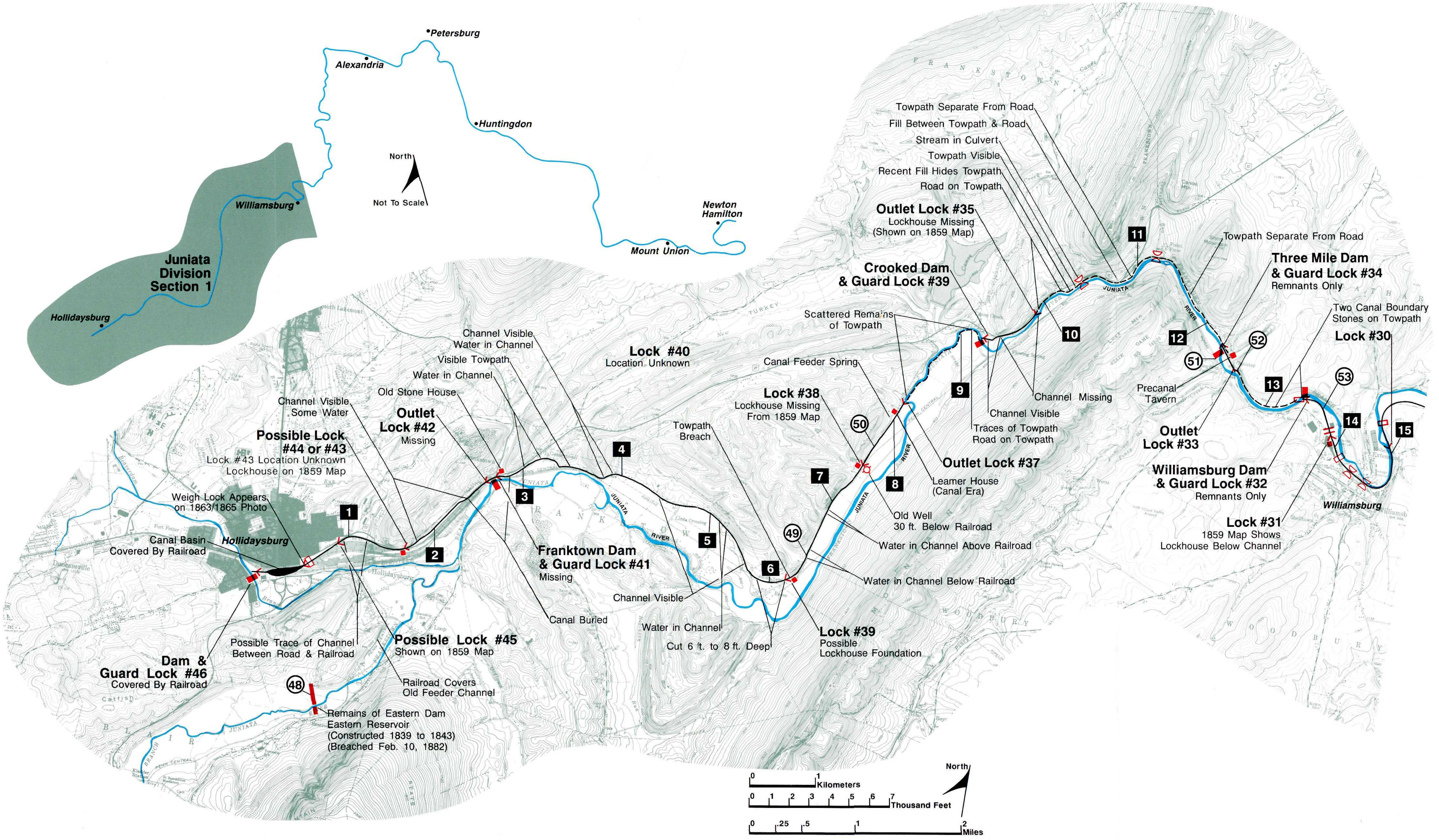
Photograph (70) Canal channel with water at mile 32.45 below Hollidaysburg

Photograph (71) Site of lift lock 2 at mile 34.65 below Hollidaysburg

Photograph (72) Remains of lift lock 1 at mile 34.75 below Hollidaysburg



Photograph ⑦③ Remains of the guard lock at the Raytown Feeder Dam at mile 6.3 below Huntingdon


Petersburg
Alexandria
Huntingdon
North
Not To Scale
Williamsburg
Newton Hamilton
Mount Union
Juniata Division Section 1
Hollidaysburg
Towpath Separate From Road
Fill Between Towpath & Road
Stream in Culvert
Towpath Visible
Recent Fill Hides Towpath
Road on Towpath
Outlet Lock #35
Lockhouse Missing (Shown on 1859 Map)
Crooked Dam & Guard Lock #39
Scattered Remains of Towpath
Canal Feeder Spring
Towpath Separate From Road
Three Mile Dam & Guard Lock #34
Remnants Only
Two Canal Boundary Stones on Towpath
Lock #30
Channel Visible Water in Channel
Visible Towpath
Water in Channel
Old Stone House
Channel Visible Some Water
Outlet Lock #42
Missing
Possible Lock #44 or #43
Lock #43 Location Unknown Lockhouse on 1859 Map
Lock #40
Location Unknown
Lock #38
Lockhouse Missing From 1859 Map
Towpath Breach
Channel Missing
Channel Visible
Traces of Towpath Road on Towpath
Outlet Lock #37
Leamer House (Canal Era)
Old Well 30 ft. Below Railroad
Water in Channel Above Railroad
Water in Channel Below Railroad
Precanal Tavern
Outlet Lock #33
Williamsburg Dam & Guard Lock #32
Remnants Only
Lock #31
1859 Map Shows Lockhouse Below Channel
Williamsburg
Weigh Lock Appears on 1863/1865 Photo
Canal Basin Covered By Railroad
Hollidaysburg
Franktown Dam & Guard Lock #41
Missing
Channel Visible
Canal Buried
Water in Channel
Cut 6 ft. to 8 ft. Deep
Lock #39
Possible Lockhouse Foundation
Possible Trace of Channel Between Road & Railroad
Possible Lock #45
Shown on 1859 Map
Dam & Guard Lock #46
Covered By Railroad
Railroad Covers Old Feeder Channel
Remains of Eastern Dam
Eastern Reservoir
(Constructed 1839 to 1843)
(Breached Feb. 10, 1882)
JUNIATA
RIVER
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
48
49
50
51
52
53
North
0
1
Kilometers
0
1
2
3
4
5
6
7
Thousand Feet
0
.25
.5
1
2
Miles

)(Aqueduct

---- Stone Wall

▫ Foundation

1 Mile Marker

∨∨ Waste Gate

┼┼┼ Railroad Bed

▨ Geologic Disturbance

㊽ Key To Photographs Located In Text

▬ Dam

▭ Bridge

= Bridge Missing

◓ Culvert

◠ Culvert Missing

∧ Lock

■ Lockhouse Foundation

— Channel With Towpath Alongside

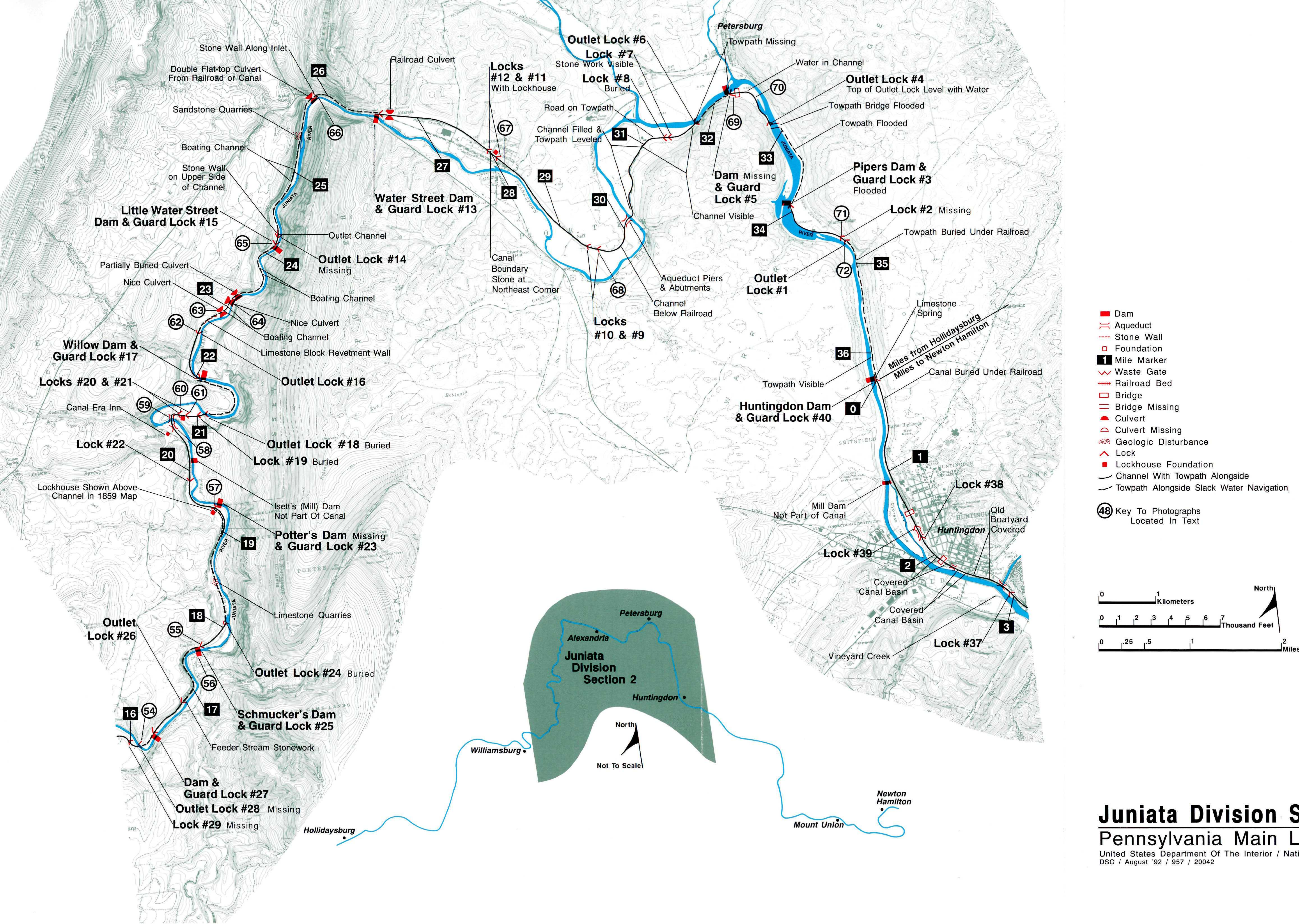
-·- Towpath Alongside Slack Water Navigation

Juniata Division Section 1

Pennsylvania Main Line Canal

United States Department Of The Interior / National Park Service

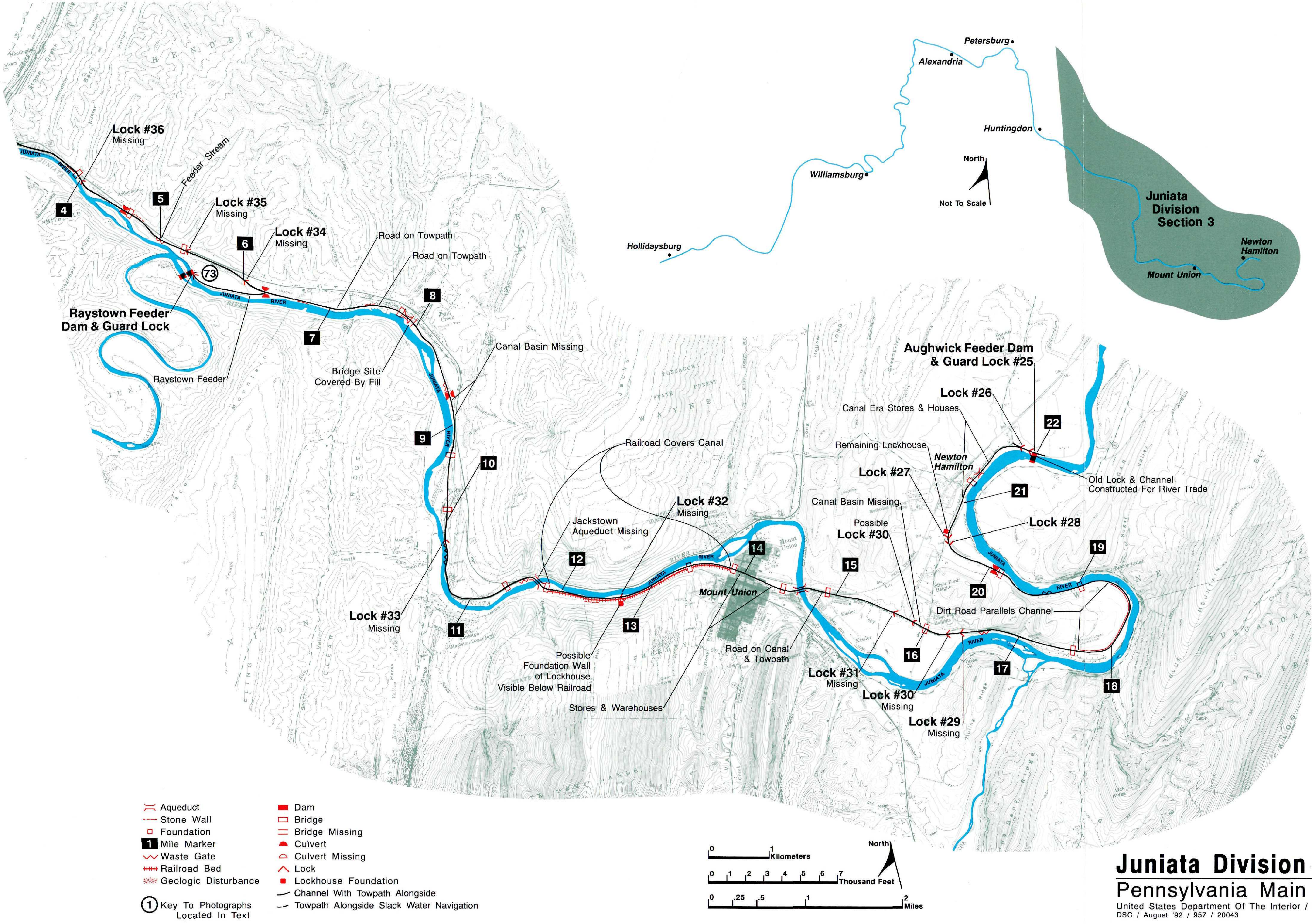
DSC / August '92 / 957 / 20041



Juniata Division Section 2

Pennsylvania Main Line Canal

United States Department Of The Interior / National Park Service
DSC / August '92 / 957 / 20042



Juniata Division Section 3

Pennsylvania Main Line Canal

United States Department Of The Interior / National Park Service
DSC / August '92 / 957 / 20043

CHAPTER III. EXTANT ARCHIVAL RECORDS PERTAINING TO THE JUNIATA AND WESTERN DIVISIONS OF THE PENNSYLVANIA MAIN LINE CANAL

PART A — BIBLIOGRAPHICAL ESSAY

1. The best single listing of archival materials regarding the Pennsylvania Canal is a Typescript volume of 235 pages prepared by Hubertis M. Cummings, a Research Associate for the Bureau of Land Records, State of Pennsylvania, in 1959. The full bibliographical entry regarding Cummings' work is as follows:

Cummings, Hubertis M. "Pennsylvania Board of Canal Commissioners' Records with Allied Records of Canal Companies Chartered by the Commonwealth, Descriptive Index." Bureau of Land Records, Anthony G. Reese Director. Pennsylvania Department of Internal Affairs, Harrisburg, Pennsylvania, 1959. (Typescript.)

In an Introduction, Cummings stated that the documents listed were, in 1959, held in custody by various branches of the Pennsylvania State government. Recent consultation, in 1991, with the Pennsylvania Historical & Museum Commission, Division of Archives & Manuscripts, Harrisburg, revealed that most of the documents listed in Cummings' compilation are now held by the aforementioned Archives & Manuscripts Division. Nonetheless, Cummings' work still serves as a useful guide for these records, even if some of them may by preserved in different repositories in Harrisburg. The records of the Juniata Division are listed between pages 67 and 80 of Cummings' work. The records of the Western Division are listed between pages 99 and 111 of the same book. See part B of this chapter for a copy of these entries from Cummings' compilation.

2. A second major listing of archival materials regarding the Juniata Division and the Western Division of the Pennsylvania Canal is found in a huge bibliographical compilation done by Adelaide R. Hasse for the Carnegie Institution between 1907 and 1922. The full bibliographical entry reads as follows:

Hasse, Adelaide R., compiler. *Index of Economic Material in Documents of the States of the United States.* Carnegie Institution, Publication No. 85, 13 Vols. in 16, Washington, D.C., 1907-1922.

The material in question is in the volume labelled Part I, covering the letters A to E. It is listed under "CANALS AND SLACK WATER NAVIGATION, PENNSYLVANIA." Hasse's focus was on the states of California, Delaware, Illinois, Kentucky, Maine, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, and Vermont. Many of the Pennsylvania documents listed are held in the Pennsylvania Division of Archives and Manuscripts in Harrisburg; some Hasse entries indicate other locations of individual copies of certain documents, but these must be considered with caution, since the listings were compiled between 1907 and 1922. The entries on canals in Pennsylvania covered more than a hundred pages, from page 379 to 485. The listings for the Juniata Division extended from page 447 to 451; the listings for the Western Division extended from page 451 to 455. These latter listings are reproduced in part C of this chapter, using the format, usages, abbreviations, and methods utilized by Hasse.

3. The third significant bibliography for source materials relating to the Juniata and Western Divisions of the Pennsylvania Canal is a typescript listing of maps done for the Division of Archives and Manuscripts in Harrisburg by Martha L. Simonetti in 1968.

The full bibliographical entry for this compilation is as follows:

Simonetti, Martha L., compiler. "Inventory of Canal Commissioners' Maps in the Pennsylvania State Archives; Record Group 17, Records of the Land Office, Map Books, 1810-1881." Division of Archives and Manuscripts, Bureau of Archives and History, Pennsylvania Historical and Museum Commission, Harrisburg, 1968. (Typescript.)

The entries on the Juniata and Western Division of the Pennsylvania Canal are scattered throughout the 91 page bibliography. In the interests of brevity and clarity, only the entries relating to the Juniata and Western Divisions will be reproduced in part D of this chapter, stating the Map Book Number, the span of years covered in that map book, and the Box Number where it is filed in the Pennsylvania Archives. Otherwise, the entries in part D follow the usages of punctuation, spelling, style, and format provided by Ms. Simonetti in 1968.

PART B — LISTING OF ARCHIVAL MATERIALS DERIVED FROM HUBERTIS M. CUMMINGS' *PENNSYLVANIA BOARD OF CANAL COMMISSIONERS' RECORDS WITH ALLIED RECORDS OF CANAL COMPANIES CHARTERED BY THE COMMONWEALTH, DESCRIPTIVE INDEX,* CONCENTRATING ON RECORDS CONCERNING THE JUNIATA DIVISION AND THE WESTERN DIVISION

The listings here will replicate the alphabetical/numerical designators used by Cummings as well as his format methods and modes of abbreviation. The entries on the Juniata Division, reproduced below, are from pages 67 through 80 of Cummings' compilation:

W2-e. 14 JUNIATA DIVISION — Contracts: Bridges, etc.

Here, where indexing is according to the names of contractors, beyond "Contracts for Bridges" (foot, farm, towpath, public, across the Kishicoquillas Feeder, across the Juniata River at North Island, etc.), which are commonly on printed forms and signed by either Acting Commissioner James Clarke or Superintendent James Taggart, are miscellaneous contracts for repairs, for casting parts, for lock gates, etc.

W2-e. 15. JUNIATA DIVISION — Contracts: Fences

Here, where indexing is according to contractors' names and the subject matter is limited strictly to fences, contracts are regularly on printed forms and entered into between contractors and Acting Commissioner James Clarke (sometimes designated as superintendent), or Superintendent James Taggart, or Superintendent James K. Moorhead, with arrangements for inspection by Engineers DeWitt Clinton, Jr., Edward F. Gay, or another engineer.

W2-e. 16. JUNIATA DIVISION — Contracts: Sections — Vol. 1

Here, where indexing is according to contractors' names and the subject matter is limited strictly to sections, contracts are regularly on printed forms and are entered into by contractors chiefly with James Clarke, designated here as superintendent. The contracts are drawn to meet plans exhibited by Engineer DeWitt Clinton, Jr.

W2-e. 17. JUNIATA DIVISION — Contracts: Sections — Vol. 2

Here, where indexing is according to contractors' names and the subject matter is limited strictly to sections, contracts are regularly on printed forms and are entered into by contractors with James Clarke, sometimes designated acting commissioner, sometimes superintendent. They are drawn to meet plans exhibited by Engineer DeWitt Clinton, Jr.

W2-e. 18. JUNIATA DIVISION — Frankstown Line
Contracts: Sections, bridges, etc.

Here, where indexing is according to contractors' names, the subject matter is limited to sections and bridges. Contracts, on printed forms, are entered into by contractors and Superintendent James Taggart. Construction is to be according to designations of the engineers: "The canal banks to be so constructed that the water may at all places be at least forty feet wide at the top water line, twenty-eight feet wide at bottom, and four feet deep."

W2-e. 19. JUNIATA DIVISION — Frankstown Line
Contracts: Locks, waste weirs, culverts, etc.

Here, where the title should have been extended to include guard locks, weigh locks, weighmasters' houses, and dams, indexing is according to contractors' names. Contracts, the majority of them on printed forms, are entered into chiefly with Superintendent Taggart.

W2-e. 20. JUNIATA DIVISION — Contracts: Lock houses, aqueducts, etc.

Here, the title is not adequate: beyond lock houses and aqueducts, contracts for both locks and the repair of locks are included.

Indexing is according to the names of the contractors. Contracts, the majority of them entered into by Acting Commissioner James Clarke, are in both printed and holograph forms. Here are the early contracts for all aqueducts on the division: Delaware Run, Big Buffalo Creek, Cococalamus Creek, the Juniata at the head of Jack's Narrows, Beaver Creek, Jack's Creek, Lost Creek, Mill Creek, Standing Stone Creek, Wakefield's Creek, Brightfield's Run, Kishicoquillas Creek, the Juniata River at Shaver's Ford, the Juniata River at Duncan's Island.

Here also is the contract for building the Kishicoquillas Feeder.

W2-e. 21. JUNIATA DIVISION — Contracts: Turnpike roads, etc.

Here, the title is highly inadequate: the volume contains not only contracts for turnpike and township roads, but also contracts for waste weirs, sluices, and culverts, as well as a number of them for the Eastern Reservoir, with printed forms of specifications for dams connected with reservoirs attached.

Particularly interesting is item 3, which contains an Article of Agreement between Acting Commissioner James Clarke and David Cummings "to complete the turnpike road that has been displaced by Sections 7, 8, 9, 10, 11, 12, 13, 14, and 18 of the Juniata Canal."

The earlier contracts are commonly entered into by Acting Commissioner James Clarke, with mentions of Engineers DeWitt Clinton, Jr., Alexander Twining, and James Ferguson.

In the Eastern Reservoir contracts during the 1840s, quite different names appear.

W2-e. 22. JUNIATA DIVISION — Contractors for Relief
1829-35, 1837

Here are indexed contractors making appeal for relief for various causes. Among them are David Cummings, James S. Espy, and Michael Holman. Among engineers presenting estimates to support claims or offering comment are Alex. C. Twining, Edw. F. Gay, Rob't Faries, and Hother Hage. The name of Superintendent James Taggart also appears.

W2-e. 23. JUNIATA DIVISION — Damages — Vol. 1

Here, indexed From Adams, A. through Jackson, Thos., uncalendared, but running through many scattered years, 1833 — 1858, are claims for payments in arrears for services and supplies.

Interesting items 31 and 32 are the claims of Henry Fronk for injuries done to his land and crops by the stacking on them of timber to be used in construction of the timber bridge at Clark's Ferry and the request of Mrs. Duncan at Duncan's Island for the privilege, for herself, her family, and her tenants, of crossing the bridge free of tolls.

W2-e. 24. JUNIATA DIVISION — Damages — Vol. 2

Here, indexed from Bell, Wm. through King, Henry, and for Williams, R., uncalendared, but running through many scattered years, 1832 — 1842, are claims for payments in arrears for services and supplies.

Claims run from the first years of the canal on through 1860.

W2-e. 25. JUNIATA DIVISION — Damages — Vol. 3

Here, indexed from Bogle, R. & Co. through Woods, Thos., uncalendared, but running through scattered years, 1832 — 1858, are divers claims for injuries to land and for arrears in payment for services or materials.

Particularly interesting are the claims of Hugh Keys, items 141-153, for his work on the Skew-Arch bridge near Hollidaysburg.

W2-e. 26. JUNIATA DIVISION — Land Damages and other claims

Here, indexed from Cameron, Robert through Shoentelt, A., but uncalendared and running through many years, 1832 — 1858, are chiefly claims of property holders against the pre-emption of their lands for the use of the Juniata Canal.

There also occur in the volume claims for arrears in payments for supplies or services.

W2-e. 27. JUNIATA DIVISION — Land Damage Claims, etc. — Vol. 2

Here are claims of property holders and others, uncalendared, but running in scattered years, 1830 — 1857. They are indexed for Dysert, J. and then from Landis, Jno through Yortey, Mary.

W2-e, 28. JUNIATA DIVISION — Land Damages and other claims — Vol. 3

Here the title of the volume is deceptive. The book reveals only a few claims connected with the division and only a minority of correspondence with that canal division.

[The remainder of this entry is not reproduced here, as it deals with materials that do not pertain to the Juniata Division, and which are quite lengthy.]

W2-e. 29a. JUNIATA DIVISION — Field notes of the survey and level of the Juniata by the Pennsylvania Canal Commissioners (James Clarke, Jacob Holgate, and Charles Trcziyulny) in the fall of 1824.

These notes indicate John Gerhart as chief leveler. They are paper bound, 7 and 1/2" by 10" and are contained in a manilla envelope.

For the map of this survey, see: Charles Trcziyulny: Plan and Profile of the Allegheny Mountain, etc. (Map Book 19, i)

W2-e. 29b. JUNIATA DIVISION — Explorations for a canal route across the Allegheny Mountain

This volume contains reports of engineers on surveys made in 1825

A. William Wilson on the Northern Route, 353 miles, January 1826

B. John Mitchell on the West Branch Route, 365 miles, 20 January 1826. This report includes his Field Book No. 4 and is contained in a manilla envelope.

C. Judge Francis W. Rawle on the Clearfield Route, 394 miles, 24 January 1826

D. John Davies on the Juniata Route, 267 miles, as surveyed in 1824 by the late Commissioners James Clarke, Jacob Holgate, and Charles Trcziyulny and in 1825 by himself, 28 November 1825.

For profiles of the several explored routes, *supra,* see Map Book 14.

W2-e. 29c. JUNIATA DIVISION — Land Damages, etc. — Vol. 4

Here, the title is misleading: the volume is filled with correspondence, but a part of which is connected with the division *per se*; much of it concerns other divisions.

[Since most of the material in the remainder of this entry does not relate to the Juniata Division, it is not reproduced here. There are two items, however, that do relate: "Represented are Wm. Darlington, canal commissioner; John Davies, exploratory engineer for a route along the Juniata in 1825;. . ." and "General Abner Lacock, canal commissioner interested in 1825 in John Davies's exploration for a route along the Juniata."]

W2-e. 30. JUNIATA DIVISION — Releases, etc., Damage Compensation Vol. 1

This volume, indexed from Aitken, J. W. through Yoder, C., Heirs of, records releases and awards or study of proper damage compensation for injury to properties as well as awards for services. Uncalendared, its records deal chiefly for the years 1828 — 1833.

Indexed are the names of a few divisional officials: Acting Commissioner James Clarke, Superintendent J. K. Moorehead, late Superintendent Evered Oles, and Superintendent James Taggart.

W2-e. 31. JUNIATA DIVISION — Releases, etc., Damage Compensation Vol. 2

This volume, indexed from Aitken, J. W. through Wright, Jacob, records releases and awards or study of proper damage compensation for injury to properties as well as awards for services. Uncalendared, its records relate to a scattering of years, 1828 — 1841.

Indexed are the names of a few divisional officials: Supervisor William Reed; Superintendent James Taggart; Supervisors James Wharton, John Whittaker, and David Woods. The names of Acting Commissioner James Clarke and of Superintendent James Taggart often appear in the items included. The name of Thos. L. Wilson, secretary to the Canal Board, is also indexed.

W2-e. 32. JUNIATA DIVISION — Reports and Miscellaneous Documents 1826 — 1840, Vol. 1

Letters and reports of canal commissioners, engineers, and contractors during the years indicated.

An interesting report occurs in items 17 and 18, "An Estimate of the Juniata Canal from Lewistown to Huntingdon, predicated on the contract and assigned prices of the lettings of 12 October and 19 November 1828."

Officials and contractors indexed are Colonel DeWitt Clinton, Jr., locating engineer; Acting Commissioner James Clarke; David Cummings, supervisor;

James Ferguson, engineer; Simeon Guilford, locating engineer, collaborating with DeWitt Clinton, Jr.; Edw. F. Gay, engineer; Hopkins & Patterson, contractors; James Milliken, contractor; John Mitchell, canal commissioner; Wm. B. Mitchell, supervisor; J. K. Moorhead, superintendent; Robert Orr, Huntingdon dam contractor; Robert Stockton, supervisor; and Superintendent James Taggart.

W2-e. 33. JUNIATA DIVISION — Reports and Miscellaneous Documents 1826 — 1840, Vol. 2

Letters and reports, chiefly of engineers, superintendents, and supervisors.

Among names indexed are those of Joseph Adams, weighmaster at Hollidaysburg; J. P. Bailey, engineer; John Bingham, forwarder; David Cummings, supervisor; A. Ennis, collector at Hollidaysburg; James Langton, supervisor; John Mitchell, canal commissioner; J. K. Moorhead, superintendent; Francis McGrath, supervisor; James Milliken, contractor; Wm. E. Morris, engineer on the Juniata Division and the Eastern Reservoir; Supervisor Thomas O'Bryan; Supervisor George Patton; Supervisor Wm. Price; John Piper, weighmaster at Hollidaysburg; Supervisor Joseph Ritter; Supervisor Robert Stockton; Sylvester Welch, engineer on the Allegheny Portage Railroad and the Western Division; Supervisor James Wharton; J. S. Wiestling, weighmaster at Hollidaysburg; Thomas L. Wilson, secretary to the Canal Board; and Supervisor David Woods.

W2-e. 34. JUNIATA DIVISION — Reports and Miscellaneous Documents 1841 — 1858, Vol. 1

Letters and reports, chiefly of engineers, superintendents, and supervisors.

Among names indexed are those of John Bingham, forwarder; James Clarke, president of the Canal Board; David Cummings, supervisor; Casper Dull, supervisor of the Upper Division; John Dougherty, forwarder and designer of section boats; J. A. Gamble, canal commissioners; J.S. Ickey; Supervisor James Langton; W. C. McCormick, collector at Hollidaysburg; David Mitchell, Jr., secretary to the Canal Board; W. R. McCoy, collector at Lewistown; Supervisor T. O'Bryan; Supervisor Evered Oles; James O'Connor, forwarder; J. S. Patton, collector at Huntingdon; Supervisor Joseph Ritter; J. B. Shugert; Supervisor David Woods; Thos. L. Wilson, secretary to the Canal Board; and J. and J. D. Whetham, rope-makers.

W2-e. 35. JUNIATA DIVISION — Reports and Miscellaneous Documents 1841 — 1858, Vol. 2

Letters and reports, chiefly of engineers, superintendents, and supervisors

Among names indexed are those of Bingham, Dock & Co., forwarders; James Clarke, canal commissioner; David Cummings, supervisor; Casper Dull, supervisor; John Dougherty, forwarder and designer of section boats; Wm. B.

Foster, Jr., engineer and canal commissioner; W. A. Gamble, contractor; D. Leech & Co., forwarders; W. C. McCormick, collector at Hollidaysburg; Wm. R. McCoy, collector at Lewistown; David Mitchell, Jr., secretary to the Canal Board; John Mitchell, engineer and former canal commissioner; Supervisor Evered Oles; J. S. Patton, collector at Huntingdon; H. L. Patterson; Supervisor John Ross; Supervisor James Turner; J. & J. D. Whetham, rope-makers; and Thomas T. Wierman (Sr.), engineer.

W2-e. 36. JUNIATA DIVISION — Reports and Miscellaneous Documents — 1858, Vol. 3

Letters and reports, chiefly of engineers and supervisors.

Among names indexed are those of Supervisor J. P. Anderson; M. A. Gamble, contractor at the Eastern Reservoir; Edw. F. Gay, here (1857) state engineer; Supervisor J. D. Leet; W. R. McCoy, collector at Lewistown; James Milliken, contractor; David Mitchell, Jr., secretary to the Canal Board; H. L. Patterson; Supervisor John Ross; Supervisor James Turner; John Edgar Thomson, chief engineer (later president) of the Pennsylvania Railroad; Thos. T. Wierman (Sr.), engineer; Thos. L. Wilson, secretary to the Canal Board; and M. W. Wilson, supervisor of the Lower Juniata Division.

The following entries regarding the WESTERN DIVISION are derived from Cummings' compilation, pages 99 through 111:

W2-f.23. WESTERN DIVISION — Contracts:
Sections, Western Reservoir, etc.

The title here is fairly inadequate and misleading: contracts within the volume embrace also fence, roads, and the Allegheny Feeder; the section contracts involve many different types of work and structure.

Contracts for sections and fence, dating between 1827 and 1830, are awarded successively by Acting Commissioners Abner Lacock and James S. Stevenson and Superintendents S. S. Jamison and Samuel Jones.

Contracts for the Western Reservoir, based upon specifications by Engineer Wm. E. Morris, are awarded by Superintendent David Watson in 1840.

Contracts for the Allegheny Feeder are awarded by Superintendent Sherman Bills in 1838.

W2-f. 24. WESTERN DIVISION — Contracts:
Locks, lock sections, tunnels, repairs

Generally, this title is accurate.

Commonly, the contracts for locks, for work on sections having locks, and for repair work on locks are signed, 1827 — 1830, by Acting Commissioners Abner Lacock and James S. Stevenson or, then and for some years afterwards, by Superintendent Samuel Jones. Usually, contracts for locks are accompanied by printed specifications.

127-149. Articles of Agreement in manuscript form bearing upon tunnels "through the hill at the loup [sic] on the Conemaugh & Kiskiminetas" and through Grant's Hill at Pittsburgh. These Articles range from 1827 to 1835 and show the signatures of Commissioners A. Lacock and Jas. S. Stevenson and of Superintendents Samuel Jones and James F. McCague.

144-145. These contracts date from 3 June 1827 and are signed by Acting Commissioner Abner Lacock and the contractors; they reveal the earliest plans for the Grant's Hill Tunnel at Pittsburgh and for the locks beyond, descending along Suke's Run to the Monongahela River.

W2-f. 25. WESTERN DIVISION — Contracts: Aqueducts

Here, the title is inadequate: the volume, beyond its first fifty-four items bearing on aqueducts, contains items 55-125 which bear on bridges and bridge embankments and items 126-236 which bear on culverts.

Generally the contracts for aqueducts are of the early period 1826 — 1830 and carry the signatures successively of Acting Commissioners Lacock and Stevenson; but item 11 reveals an Article of Agreement for new construction of the Freeport Aqueduct across the Allegheny which contains the name of Engineer T. G. Pomeroy as of the year 1854, when he was directing work on the New Allegheny Portage Railroad.

Beyond this aqueduct and others at Deer Creek, Pine Creek, etc., perhaps the most interesting one is that crossing the Allegheny River at Pittsburgh, for which a number of Articles appear in addition to the earliest one signed 3 June 1827 by Acting Commissioner Lacock and by Sylvanus Lothrop for the contractors LeBaron and Lothrop.

All contracts carry with them detailed specifications.

W2-f. 26. WESTERN DIVISION — Contracts: Walls, dams, and repairs

Generally, this title is correct, although it might refer specifically to slope walls and to various types of dams, including tumbling dams.

1-158. Contracts for slope walls, from 1828 — 1840, which are signed by a succession of acting commissioners, superintendents, and other officials: A. Lacock, Jas. S. Stevenson, Samuel Jones, S. S. Jamison, and Absalom Morris.

159-231. Contracts for dams, tumbling dams, and repairs to dams, all of which bear the same signatures as those, *supra*, for generally the same years.

The index relates chiefly to contractors, although the name of James D. Harris, engineer, and that of Sherman Bills, who was both the superintendent of the Allegheny Feeder and a contractor, appear in it.

W2-f. 27. WESTERN DIVISION — Contracts: Lock houses and repairs

This title would be more precise had it included "Miscellaneous Repairs."

1- 48. Contracts for lock houses signed by Acting Commissioner Abner Lacock and by Superintendent Samuel Jones and dated chiefly from 1828 to 1830.

49-256. Contracts for a great range of services and materials are dated irregularly from 1828 to 1840 and bear the signatures of Commissioners Lacock and Stevenson, of Superintendents S. S. Jamison and Samuel Jones, and of other officials.

W2-f. 28. WESTERN DIVISION — Damage Claims, Vol. 1

Here, indexed from Allegheny & Butler Plank Road Co. through Moore, W. E., uncalendared but running through many scattered years, 1829 — 1854, are claims for injuries done to land and properties, for payments for services in arrears, and for materials furnished to the division.

W2-f. 29. WESTERN DIVISION — Damage Claims, Vol. 2

Here, indexed from Anderson, M., through Schoenberger, P., uncalendared but running through scattered years, 1829 — 1853, are claims for injuries done to land and properties, for payments for services in arrears, and for materials furnished to the division.

The names of Francis Rawn Shunk, secretary to the Canal Board, and of Peter Schoenberger, ironmaster, are indexed.

133-151. Claims of James O'Connor and Company, forwarders, for injuries done to their boat, *Enterprise*, "through gross negligence and fault of state officers (the lock keeper and the foreman of the division)" a little west of Bolivar, on 4 November 1851.

W2-f. 30. WESTERN DIVISION — Damage Claims, Vol. 3

Here, indexed from Baines, Jos. through Zegh, Daniel, uncalendared but running through scattered years, 1828 — 1860, are claims for injuries done to land and properties, for payments in arrears for services, and for materials furnished to the division.

233. Canal Board award of $400 to James O'Connor and Co. for injury done to the section boat *Cincinnati* on 7 November 1851, when it struck a stone in the canal just below the Freeport Aqueduct and "knocked a hole" in its bow.

W2-f. 31. WESTERN DIVISION — Damage cases

Here, indexed from Andrews, W. B. J. through Wilson and Lynch, are claims of contractors and property holders against the Canal Board.

52- 74. Claims connected with the flooding of William McFarland's salt works by reason of obstructions in the Conemaugh caused by the building of the Pennsylvania Canal.

102-110. Entries which illustrate the difficulties Coltart & Dilworth had after they had accepted a contract to continue the arch of the Grant's Hill Tunnel on its Monongahela end on 5 August 1835.

W2-f. 32. WESTERN DIVISION — Releases and damage compensation

This almost wholly unindexed volume records, through scattered years, releases signed by claimants for injuries to land, for loss of crops, for unpaid services, etc.

Canal officials acknowledging these releases are most commonly Acting Commissioner Abner Lacock and Superintendent Samuel Jones.

4. A release from David Leech of Leechburg, who will profit much later on as a forwarder on the Pennsylvania Canal, to Superintendent Jones for damage done to his saw-mill, store, and warehouse, carding machine, lands, crops, stables, houses, walls, and cellars by the construction of the new dam at Leechburg, 11 April 1832, for which he has been allowed $2,000.

W2-f. 33. WESTERN DIVISION — Contractors for Relief, Vol. 1

Here, indexed from Bills, Sherman through Welch, S., are contractors making appeal for relief for various causes. Prominent among them is Sherman Bills, who will later be the superintendent of the Allegheny Feeder.

Among engineers certifying to the validity of appeals are Sylvester Welch and A. B. Warford.

W2-f. 34. WESTERN DIVISION — Contractors for Relief, Vol. 2

Here, indexed from Alexander, C. A. through Welch, S., are contractors making appeal for relief for various causes.

Among engineers certifying to the validity of appeals is Sylvester Welch.

W2-g. 1a. WESTERN DIVISION — A western route for a canal and a "portage road" as proposed by General Abner Lacock in 1825; a Letter and Report

A. Abner Lacock to President John Sergeant of the (new) Canal Commission, 7 November 1825, demonstrating the impracticability of constructing and supplying with water the long tunnel through Allegheny Mountain proposed by James Clarke and Jacob Holgate after their survey in 1824; by process of elimination, showing what is the most practicable route for a canal from the western slopes of Allegheny Mountain into the City of Pittsburgh. (Autograph letter, signed.)

B. General Lacock's report, 7 November 1825, on the most available route for a western division canal and the feasibility of a portage road (he does not call it "railroad") over the mountain, with estimates of the costs of construction.

The foregoing items are in a manilla envelope packet.

W2-g. 1b. WESTERN DIVISION — Reports and Miscellaneous Documents 1826 — 1843, Vol. 1

Indexed here are numerous items bearing on the locating and the building of the Western Division; on appointments, accidents, claims, contracts, costs, dams, engineers, reports, resignations, tolls, wages, and water.

Important figures indexed are Harmar Denny, eloquent Pittsburgh advocate of the Pennsylvania Canal; Wm. B. Foster, Sr., toll collector, father of Stephen Collins Foster, the song-writer; Superintendent S. S. Jamison; Superintendent Samuel Jones; R. L. Keen, clerk; Abner Lacock, acting commissioner; Alonzo Livermore, engineer; Superintendent James McCague; Joseph McIlvaine, secretary to the Canal Board; Nathan S. Roberts, locating engineer; William Milnor Roberts, assistant engineer; John M. Snowden, chairman of Pittsburgh Town Meeting; William Strickland, engineer and architect, here a consultant on the location of the Western Division; Sylvester Welch, principal engineer, presently to be construction engineer on the Allegheny Portage Railroad.

W2-g. 2. WESTERN DIVISION — Reports and Miscellaneous Documents 1826 — 1843, Vol. 2

Indexed here are items bearing on petitions, etc.

Important figures indexed are Andrew Boggs, substitute collector for Wm. B. Foster, Sr., at Pittsburgh; the Council of Allegheny; the Council of Freeport; Wm. B. Foster, Esq., toll collector at Hollidaysburg; Wm. B. Foster, toll collector at Pittsburgh, father of Wm. B. Foster, engineer, and his brother Stephen Foster, the song-writer; Wm. Ingram, collector at Allegheny; Superintendents Samuel Jones and S. S. Jamison; Abner Lacock, acting commissioner; Supervisor James F. McCague; Joseph McIlvaine, secretary to the Canal Board; Supervisors Alex. McConnell and Sheldon Marks; James Moorhead, collector at Blairsville; Supervisor Absalom Morris; Engineer Wm. E. Morris; James Potts, collector at Johnstown; John M. Snowden of Pittsburgh; Francis Rawn Shunk, secretary to the Canal Board; Charles L. Schlatter, principal engineer (See: Surveys and Correspondence, I, Index); Sylvester Welch, construction engineer on the Allegheny Portage Railroad and principal engineer on the Western Division.

W2-g. 3. WESTERN DIVISION — Reports and Miscellaneous Documents 1826 — 1843, Vol. 3

Indexed here are numerous items bearing on appointments, accounts, claims, coal, complaints, contracts, the collector's office in Allegheny Town, fines, frauds, improvements, iron, prosecutions, reservoirs, and tolls.

Important figures indexed are Wm. Bingham of the Bingham Line, forwarder; James Clarke, canal commissioner; Charles Ellet, Jr., bridge builder here, in September 1843, recommending a wire-suspension aqueduct to replace the damaged aqueduct across the Allegheny at Pittsburgh; Wm. E. Morris, engineer; Supervisor Absalom Morris; William McElroy, collector at Allegheny; M. McFadden & Co., forwarders; James O'Connor, forwarder; James Potts, collector at Johnstown; John Snodgrass, superintendent, Allegheny Portage Railroad; Thos. L. Wilson, secretary to the Canal Board; David Watson, supervisor; and John White, assistant engineer.

W2-g. 4. WESTERN DIVISION — Reports and Miscellaneous Documents 1844 — 1859, Vol. 1

Indexed here are numerous items bearing on accounts, the aqueduct at Pittsburgh, appointments, bridges, complaints, contracts, dams, drawbacks, repairs, reports, resignations, salaries, tolls, and water and water power.

Important figures indexed are James Clarke, president of the Canal Board; James Dickey, contractor; Wm. B. Foster, Jr., engineer; James Fleming, collector at Pittsburgh; Edw. F. Gay, engineer; John Gadd, supervisor; S. S. Jamison, superintendent; Wilson Knott, supervisor; David Leech, forwarder; Wm. LeBaron, contractor; David Mitchell, Jr., secretary to the Canal Board; J. K.

Moorhead; Alexander Plumer, secretary to the Robblestown Bridge Co.; John A. Roebling, inventor of wire rope and builder of the Pittsburgh Aqueduct; John Snodgrass, superintendent, Allegheny Portage Railroad; Thomas L. Wilson, secretary to the Canal Board; A. B. Warford, engineer; David Watson, supervisor; and Sylvester Welch, engineer.

W2-g. 5. WESTERN DIVISION — Reports and Miscellaneous Documents 1844 — 1859,
Vol. 2

Important figures indexed here are James Clarke, president of the Canal Board; R. W. Clarke, superintendent; Levi G. Clover, collector at Pittsburgh; John Fleming, collector at Pittsburgh; Wm. B. Foster, Jr., engineer and here canal commissioner; James Gillespie, collector at Freeport; Superintendent S. S. Jamison; Leech & Co., forwarders; David Mitchell, Jr., secretary to the Canal Board; J. K. Moorhead, contractor; Supervisor Wm. McPherson; John A. Roebling, inventor of wire ropes and builder of the aqueduct at Pittsburgh; C. G. Snowden, Pittsburgh physician; Supervisor David Watson; and A. N. Wasson, collector at Johnstown.

W2-g. 6. WESTERN DIVISION — Reports and Miscellaneous Documents 1844 — 1859,
Vol. 3

Indexed here are a few items bearing on petitions and wages.

Names of division officials and a few correspondents indexed are Perry Baker, collector at Pittsburgh; Thomas Bingham, forwarder; Wm. S. Boyers, supervisor; Levi G. Clover, collector at Pittsburgh; James Clarke, former canal commissioner and president of the Board; Supervisor Joseph Clark; Superintendent S. S. Jamison; D. Leech & Co., forwarders; William McPherson, supervisor (or superintendent?); J. K. Moorhead, contractor; Supervisor J. M. Orr; Supervisors Alex. Powell and John Peters; Israel Painter, canal commissioner; T.G. Pomeroy, engineer and superintendent of the New Allegheny Portage Railroad; John Smith, supervisor; Jacob Ulam, supervisor; and Thomas L. Wilson, secretary to the Canal Board.

W2-g. 7. WESTERN DIVISION — Pine Creek and Allegheny Line Contracts: Sections

Indexed here, from Alvord & Co. through Washburn, Dan'l & Co., are the names of contractors who signed Articles of Agreement (chiefly in printed form) with Acting Commissioner Abner Lacock in August 1826: to dig, embank, puddle, and construct, etc." the one hundred and thirteen sections of the Line.

W2-g. 8. WESTERN DIVISION — Stony Creek Feeder
Contracts: Bridges, waste weirs, etc.

The title of this volume is somewhat of a misnomer; it omits mention of such important items as buildings (brick dwellings, weigh houses, weigh scales, etc.), and water rights (rights granted to manufacturers to use surplus water at locks for industrial purposes).

The names of contractors, from Artz & Dobbins through Young, McConnell & Co., who sign Articles of Agreement with early canal officials such as Acting Commissioners A. Lacock and Jas. S. Stevenson and Superintendent Samuel Jones during 1826 — 1830, and with later ones like Supervisor Absalom Morris, are fully indexed.

W2-g. 9. WESTERN DIVISION — Ligonier Line
Contracts: Sections

Here, indexed from Anderson, David through Whittlesey & McFarland, are the names of contractors who, between 1826 and 1830, sign Articles of Agreement with Acting Commissioners A. Lacock and James S. Stevenson "to dig, embank, puddle, and construct, etc." the sections of the Ligonier Line.

W2-g. 10. WESTERN DIVISION — Kiskiminetas and Conemaugh Line
Contracts: Sections

Here, indexed from Anderson, Jno. through Windrum and McKee, are the names of contractors who, between 1827 and 1829, sign Articles of Agreement with Acting Commissioner Abner Lacock to "dig, embank, puddle, and construct, etc." the sections of the Kiskiminetas and Conemaugh line.

PART C — LISTING OF ARCHIVAL MATERIALS DERIVED FROM ADELAIDE R. HASSE'S BIBLIOGRAPHY *INDEX OF ECONOMIC MATERIAL IN DOCUMENTS OF THE STATES OF THE UNITED STATES,* CONCENTRATING ON DOCUMENTS CONCERNING THE JUNIATA DIVISION AND THE WESTERN DIVISION OF THE PENNSYLVANIA MAIN LINE CANAL

CANALS AND SLACK-WATER NAVIGATION: INDIVIDUAL UNDERTAKINGS

JUNIATA DIVISION

Extended from junction of the Susquehanna and Juniata to Hollidaysburg.
See also above, [not here] Main Line.

serial
A

1827-1835. Report of superintendent of Juniata Division.
In Documents as follows:

James Clarke, supt.
1827 in Report canal comrs. 1827: 104-115 (series 7, no. 1).
Paging from Senate ed. (v. 2).
1828-1829. See below, Group B.

James Taggart, supt.
1830 in A.R. canal comrs. 1829/30:97-99*@
1831 in A.R. canal comrs. 1830/1:90-91*@
1832 in A.R. canal comrs. 1831/2:126-128*@

James K. Moorhead, supt.
1833 in A.R. canal comrs. 1832/3:177-194.*@
1834 in A.R. canal comrs. 1833/4:74-79.*
1835 in A.R. canal comrs. 1834/5:50-52.+
Occurs in all editions except House dept. ed.

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* Paging from Senate doc. ed.
+ Paging from House doc. ed.
@ Omitted from dept. editions.

B

1828-1829. Report of acting commissioner
In Documents as follows:

James Clarke, acting commissioner
1828 in A.R. canal comrs. 1827/8:50-53 (series 3, no. 1).*
1829 in A.R. canal comrs. 1828/9:178-182.*

C

1828-1841. Report of engineer
In Documents as follows:

DeWitt Clinton, engineer
1828 in A.R. canal comrs. 1827/8:53-59 (series 3, nos. 2-4).*

Alex. C. Twining, engineer
1829 in A.R. canal comrs. 1828/9:187-188.*

James Ferguson, engineer
1830 in A.R. canal comrs. 1829/30:99-100*@

Edwd. F. Gay, engineer
1831 in A.R. canal comrs. 1830/1:92-96.*@
1832 in A.R. canal comrs. 1831/2:112-119.+@
1833 not found.

Sylvester Welch, engineer

1834 in A.R. canal comrs. 1833/4:80-83*

1835 in A.R. canal comrs. 1834/5:59-60.+

Occurs in all editions except House dept. ed.

1836-1838 not found.

Wm. E. Morris, engineer

1839 in A.R. canal comrs. 1838/9:156-158.#

1840 in A.R. canal comrs. 1839/40:129-133.*

Occurs in all editions except Sen. dept. ed.

1841 in A.R. canal comrs. 1840/1:96-101.*@

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* Paging from Senate doc. ed.

+ Paging from House doc. ed.

# Paging from Collected docs.

@ Omitted from dept. editions.

non-serial

1824 Feb. 10. Report of [select] committee (Clarke) apptd. to consider practicability of a water communication between Middletown and Pittsburgh. (*Same* 1823/4: 606-610.)

1824 Same, separate, entitled: Report of the committee to whom was referred the subject of the Juniata and Conemaugh Canal. n.p., J. S. Wiestling, prtr., 1824. 13 pp.

Copies seen in Hist. Socy. of Penn. and Amer. Phil. Socy. 300 copies ordered prtd. (House jol. 1823/4:617.

1825 Dec. 30. Acct. of examination of the Juniata summit and measurement and levels, thence by the Conemaugh, Kiskiminetas and Allegheny to Pittsburgh. ([Preliminary] report of canal comrs. Dec. 30, 1825.)

1827 July. 1. First report of DeWitt Clinton, Jr. on the Juniata location. (Report canal comrs. 1827:97 (series 6, no. 1).)

Paging from Sen. ed. (v. 2).

1827 July. 1. First report of Mr. Guilford on the Juniata location. (*Same* 1827:97 (series 6, no. 2).)

Paging from Sen. ed. (v. 2).

1827 Aug. 2. Jt. report of Messrs. Guilford and Clinton on the Juniata location. (*Same* 1827: 98-101 (series 6, no. 3).)

Paging from Sen. ed. (v. 2).

1827 Sept. 10. Communication from J. Miller in behalf of the citizens of Perry Co. (*Same* 1827:101-103 (series 6, no. 4).)

Paging from Sen. ed. (v. 2).

1827 Nov. 20. Report of DeWitt Clinton, Jr., engineer, on the Juniata division, with estimate of its cost at contract prices. (*Same* 1827: 116-127 (series 7, no. 2).)

Paging from Sen. ed. (v. 2).

1827 Dec. 25. Change in dimensions of locks on the Susquehanna and Juniata divisions to correspond with those built on the eastern division. (A.R. comrs. 1827: 24.)

1827 Dec. 25. Location and cost of a canal from the head of Duncan's Island to Lewistown. (Report canal comrs. 1827: 11.)

1828 Contemplated joining of the Susq. division and Juniata canal on Duncan's Island. (*Same* 1827: 11.)

1828 Contracts for extension of Juniata division and French creek feeder. (A.R. canal comrs. 1827/8:70.)

Paging from House doc. ed.

1828 List of sections which have been re-let, together with four new sections that have been sold on the first part of the Juniata Division of the Penn. Canal, since Nov. 24, 1827. (A.R. canal comrs. 1827/8: folding sheet [1] table A between pp. 59-59 (series 3, no. 5).)

Paging from Sen. doc. ed.

1828 List of incidental work which has been re-let together with the new work that has been sold on the first part of the Juniata division of the Penn. Canal since Nov. 24, 1827. (*Same* 1827/8: folding sheet [1] between pp. 58 and 59, table B (series 3, no. 6).)

Paging from Sen. doc. ed.

1828 June 5. Report of committee (Lacock) on the Juniata aqueduct. (Jol. bd. canal comrs. 1828.)

1828 Dec. 5. Present organization of the engineer corps, on the Juniata division. (A.R. canal comrs. 1827/8: (folding sheet 6, table H, between pp. 58 and 59, series 3, no. 12).)

Paging from Sen. doc. ed.

1828 Dec. 5. Stmt. of work done, amt. of estimates for the same, and the sums of money paid thereon, on the first 95 sections of the Juniata division of the Penn. Canal. (*Same* 1827/8: folding sheet 2 [table C] between pp. 58 and 59 (series 3, no.7).)

Paging from Sen. doc. ed.

1828 Dec. 5. Stmt. of quantity of incidental work done, amt. of estimates for the same, and the sums of money paid thereon on the first part of the Juniata division of the Penn. Canal. (*Same* 1827/8: folding sheet 3, table D, between pp. 58 and 59 (series 3, no. 8).)

Paging from Sen. doc. ed.

1828 Dec. 5. Stmt. of contracts for excavation of 90 sections on the 2d part of the Juniata division of the Penn. Canal. (*Same* 1827/8: folding sheet 4, table E, between pp. 58-59 (series 3, no. 9).)

1830 Jan. 29. Report of [select] committee (Banks) rel. to dam and river lock at North's Is. in Juniata river. (House jol. 1829/30 v. 2: 613 (doc. 206).)

1830 March 23. Report of a committee of the House of representatives apptd. upon the application of James Clarke, acting canal commissioner on the Juniata division of the Penn. Canal, to investigate his official conduct, in relation to certain charges set forth against him in a petition which had been presented, together with some of the docs. which were given in evidence, and also an abstract from the testimony taken in the investigation. Harrisburg: Prtd. by Welsh and Miller, 1830. 14pp.

Copy seen in the Penn. State Library [University Park PA].

1830 Nov. 20. Juniata division; communication from W. B. Mitchell, supervisor, rel. to repairs. (A.R. canal comrs. 1829/30: 100-101.)

Paging from Sen. doc. ed.; omitted from dept. editions.

1830 Dec. 21. Description of Juniata division, country through which it passes; principal works and their cost. (*Same* 1929/30: 46-48.)

Paging from Sen. doc. ed.

1831 Feb. 11. Report of committee on inland navigation and internal improvement (Ingersoll) upon petition for a survey with view to construction of dam and out-let lock on Juniata river at mouth of Tuscarora creek. (House jol. 1830/1 v. 2: 762 (doc. 149).)

1831 Feb. 26. Report of committee on inland navigation and internal improvement (Ingersoll) upon petition of contractors upon Juniata division of Penn. canal asking alterations in laws rel. to re-measurements; adverse. (*Same* 1830/1 v. 2: 813 (doc. 192).)

1832 Table: length of the different levels on the Juniata division and amt. of incidental work on each level. (A.R. canal comrs. 1831/2: 131-135.)

Paging from Sen. doc. ed.; omitted from dept. editions.

1833 Penn. canal; Juniata div. Tables: amt. of work done upon each section, and upon each item of incidental work during year; names of contractors and amt. paid each. (*Same* 1832/3: 182-188.)

Paging from Sen. doc. ed.; omitted from dept. editions.

1834 Feb. 10. Report of committee on inland navigation and internal improvement (Alexander) upon the petition in relation to widening the towing path of the canal from Johnstown to Suttons Dam, and a turnpike road to Armagh. (House jol. 1833/4 v. 2: 626-627 (doc. 148).)

1834 March 26-29. Reports of committee on accts. upon the accts. of witnesses attending before the committee apptd. to investigate the conduct of supervisors and agents upon the Juniata division of the Penn. Canal. (*Same* 1833/4 v. 2: 835-837 (docs. 184-185); 841-843 (docs. 188-190).)

Clarke (docs. 184-185), Bennett (doc. 188), Banks (doc. 189), Harvey (doc. 190).

1834 March 29. Report of committee on claims (Clarke) upon accts. of witnesses before committee apptd. to investigate conduct of supervisors and agents upon Juniata division of Penn. Canal. (*Same* 1833/4 v. 2: 845-846 (doc. 193).)

1834 Apr. 9. Report of the committee (Goodman) to whom were referred sundry petitions praying for an investigation into the conduct of the public agents, on the Juniata division, Penn. Canal. (*Same* 1833/4 v. 2: 910-915 (doc. 205).)

1834 Same, separate. Harrisburg: H. Welsh, 1834. 7 pp.

Copy seen in Library of Congress.

1834 Apr. 14. Report of the canal comrs. upon the surplus water of the dam in the Long Narrows upon the Juniata division. (*Same* 1833/4 v. 2: 933 (doc. 217).)

1834 Apr. 14. Protest of the minority of the committee (Cromwell) complaining of the conduct of the public agents upon the Juniata division of the Penn. Canal. (*Same* 1833/4 v. 2: 941-943 (doc. 221).)

1835 March 27. Report of canal comrs. rel. to official conduct of James K. Moorhead, supervisor of Juniata division of Penn. Canal. (*Same* 1834/5 v. 2: 773-774 (doc. 220).)

1840 Jan. 14. Report of the auditor gen. (Espy) rel. to the expenditure of public money upon the breach on the Penn. Canal between Huntingdon and Hollidaysburg: W. D. Boas, 1840. 137 pp.

Copy seen in the Penn. State Library [University Park PA].

1840 Jan. 21. Length of Juniata division; no. of locks, contracts for renewal of bridges, repairs and improvements suggested; estimated cost of repairs. (A.R. canal comrs. 1838/9: 18-20.)

Paging from House doc. ed.

1841 Stmt. of names of contractors, and contract prices of Juniata division. (House jol. 1841 v. 2: 172, 2 folding tables (doc. 92).)

1841 Jan. 1. Severe ice freshet cause of great damage on Juniata division; condition of locks; repairs needed. (*Same* 1839/40: 22-23.)

1841 Feb. 13. Communication from auditor gen. (Espy) with stmt. of contracts on Juniata division of Penn. Canal, filed subsequent to Nov. 1, 1839. (House jol. 1841 v. 2: 172, 2 folding tables.)

1841 Apr. 17. Reply of canal comrs. to Sen. res. rel. to apptmt. of an agent to assist the auditor gen. in examination of vouchers of officers entrusted with receipts and disbursements of money expended in repairing breach on the Juniata division in 1838. (Jol. bd. canal comrs. 1841/2.)

1842 Jan. 15. Propriety of rebuilding outlet lock at Lewistown, Juniata division. (A.R. canal comrs. 1840/1: 10-11.)

Paging from Sen. ed.

1845 Dec. 30. Lack of water on upper levels of Juniata division; necessity for completion of reservoirs; burning of Sharer's Ford aqueduct resulting in reduced tolls. (*Same* 1844/5: 7-8.)

1846 Dec. 31. Rebuilding of Sharer's Ford aqueduct and outlet lock at Lewistown; cost. (*Same* 1845/6: 9.)

1847 Dec. 30. Propriety of constructing dam at lower end of narrows below Lewistown. (*Same* 1846/7: 11.)

1852 Jan. 9. Length and extent of Juniata division; no. of dams and locks; cost of repairs; advantage of eastern reservoir on this division. (*Same* 1850/1: 14, 15.)

1854 Abstr. of operations on Upper Juniata division. (*Same* 1853/4: 18-19.)

1854 Same; Lower Juniata division. (*Same* 1853/4: 18.)

1885 Penn. Canal Co.: abandonment of a certain portion of the Juniata division. (Legislative Record 1885: 890-892; 895-901; 1011; 1054-1063.)

CLAIMS

See also below, DAMAGES.

1829 Oct. 1. Report of committee (Mitchell) on application of contractors for construction of an aqueduct across the Juniata at head of Duncan's Island resp. damages sustained. (Jol. bd. canal comrs. 1829.)

1829 Dec. 16. Report of James Clarke, on claim of James M'Namee, former contractor on the Juniata division. (*Same* 1829.)

Read Dec. 17, 1829.

1829 Dec. 17. Same; claim of Michael Holman. (*Same* 1829.)

1830 March 19. Report of committee (Mitchell) on application of David Cummings for compensation for work done on the Susquehanna. (*Same* 1830/1.)

1830 March 20. Same; on application of Smith & Rathbone, contractors on the Juniata division. (*Same* 1830/1.)

1830 May 27. Same; application of Michael Holman, claiming compensation for construction of a stone wall at the aqueduct, Duncan's Island. (*Same* 1830/1.)

1830 May 27. Report of James Clarke on application of Smith & Rathbone. (*Same* 1830/1.)

1832 March 1. Report of committee on roads, bridges and inland navigation (Cunningham) on petition of James M'Namee for compensation for work and materials on the Juniata division of the Penn. Canal. (Sen. jol. 1831/2 [v. 1]: 413-414.)

1833 Feb. 13. Report of committee on inland navigation and internal improvement (Miller) upon petition of Alex. M'Cormick, a contractor on the Juniata division of the Penn. Canal. (House jol. 1832/3 v. 2: 513-514 (doc. 147).)

1833 Feb. 13. Report of committee on inland navigation and internal improvement (Miller) on petition of Wm. Parsons, late a contractor on Juniata division of Penn. Canal. (*Same* 1832/3 v. 2: 514-515 (doc. 148).)

1847 Jan. 21. Communications from canal comrs. rel. to claim of John Rhey, contractor on Juniata division; claims of Royer & Schmucker for damages sustained by freshet in the Juniata River in 1838; claims of Thos. Collins resp. work on the Gettysburg R.R. (Sen. jol. 1847 v. 1: 100-101; House jol. v. 2: 245-247 (docs. 23-25).)

1848 Feb. 17. Report of canal comrs. rel. to certain claim against commonwealth contracted by D. Woods, late supervisor of Juniata division. (Sen. jol. 1848 v. 2: 345 (doc. 41).)

1849 March 21. Communication from auditor gen. (Purviance) rel. to claim of Green, Dorsey & Co. for materials furnished on the Juniata division of Penn. Canal. (*Same* 1849 v. 2: 488-489 (doc. 68).)

1849 Apr. 6. Communication from auditor gen. (Purviance) rel. to claim of John Brotherline. (*Same* 1849 v. 2: 481-482 (doc. 62); House jol. 1849 v. 2: 545-546 (doc. 69).)

DAMAGES

1829 Juniata division: amt. of damages which have been paid and list of persons with whom agreements have been made. (A.R. canal comrs. 1828/9: 189-190.)
Paging from Sen. Doc. ed.

1829 June 6. Table: damages allowed on Juniata division. (Jol. bd. canal comrs. 1829.)

1829 Oct. 3. Report of James Clarke resp. damages on the Juniata division. (*Same* 1829.)

1829 Oct. 3. Report of James Clarke on claim of Dr. Saml. Mealy for damages on the Juniata division of the Penn. Canal; manner of construction of sec. 61. (*Same* 1829.)

1831 Schedule: appeals, amt. offered by canal comrs., and amt. awarded by appraisers for damages on eastern, Juniata and Delaware divisions. (A.R. canal comrs. 1830/1: 24.)

1832 Juniata division: amt. of damages paid during year. (A.R. canal comrs. 1831/2: 135.)
Paging from Sen. doc. ed.; omitted from dept. editions.

1832 June 16. Damages on the Juniata division, July. 28, 1830-Jan. 17, 1832; Sept. 2-6, 1832. (*Same* 1832/3.)

1833 May 8. Offers for damages Sept. 27, 1832-May 3,1833; Oct. 22-24, 1832. (*Same* 1833/4.)

1834 March 28. Report of the canal comrs. rel. to damages paid on the Juniata division of the Penn. Canal. (House jol. 1833/4 v. 2: 839-841 (doc. 187).)

1835 Damages to be paid; date of award, names, amt. (Jol. bd. canal comrs. 1835/6.)

1835 March 20. Report of committee on private claims (Leet) on petition of A. Addams for damages sustained by construction of Juniata division of Penn. Canal. (Sen. jol. 1834/5 v. 1: 399-401.)

1838 Juniata division; injury caused by heavy rain; cost of repairs; amt. of tolls received on this division and on eastern division embracing whole line from Columbia to Hollidaysburg. (A.R. canal comrs. 1837/8: 8-10.)
Paging from House doc. ed.

EMPLOYEES AND OFFICERS

See also below, RECEIPTS AND EXPENDITURES.

1828 Dec. Stmt. of persons to whom, and the price at which the stone and wood work has been assigned, on the second part of the Juniata division. (A.R. canal comrs. 1827/8: folding sheet 5, table F. between pp. 58 and 59 (series 3, no. 10).)
Paging from Sen. doc. ed.

1828 Dec. 6. List of persons engaged in the engineer corps and the canal office, their term of service and amt. of wages since Nov. 24, 1827 on the Juniata division of the Penn. Canal. (*Same* 1827/8: folding sheet 6, table G, between pp. 58 and 59 (series 3, no. 11).)
Paging from Sen. doc. ed.

1829 Juniata division; list of engineer corps, supervisor, collector and lock keepers. (*Same* 1828/9: 190.)
Paging from Sen. doc. ed.

1830-1831 Dec. 6. List of officers and agents employed. (*Same* 1829/30 (p. 100, table 5)—*same* 1830/1.)
Paging from Sen. doc. ed; omitted from dept. editions.

1831 Apr. 4. Employees on the Juniata division and their compensation. (Jol. bd. canal comrs. 1831/2.)

RECEIPTS AND EXPENDITURES

See also above, DAMAGES.

See also above, Penn. Canal, etc. RECEIPTS AND EXPENDITURES, under dates 1825/40-1825/58 [not reproduced here, but found on page 419 of Hasse's bibliography].

1829 Table: amt. paid to jobbing contractors and assistant supervisors on Juniata division. (A.R. canal comrs. 1828/9: 188-189.)
Paging from Sen. doc. ed.

1829 Summary view of the whole expense of every kind incurred and estimated. (*Same* 1828/9: 191-193.)
Paging from Sen. doc. ed.

1830 Juniata division; tables: amt. paid, amt. of forfeitures, balance yet to pay on sections between mouth of the Juniata and Lewiston and between Lewiston and Huntingdon; work re-let and contracted for since Dec. 5, 1829; abstract of amt. paid on various kinds of work; dr. and cr. stmt., Dec. 6. (*Same* 1829/30: 100, tables 1-4.)
Paging from Sen. doc. ed.; omitted from dept. editions.

1833 Table: contingent expenses. (*Same* 1832/3: 189.)
Found only in doc. eds.; paging from Senate doc. ed.

1833-1834. Table: payments on old lines. (*Same* 1832/3 (pp. 191- 194)—*same* 1833/4.)
Found only in doc. ed.; paging from Sen. doc. ed.

1836/7. Penn. Canal; Juniata and eastern division; amt. expended on whole line from Hollidaysburg to Columbia from Oct. 31, 1836-Oct. 31, 1837; tolls derived from same for that period. (*Same* 1836/7: 13.)

1838 See above, DAMAGES, this date.

1841 See above, Penn. Canal and R.R. RECEIPTS AND EXPENDITURES, this date [not reproduced here, but appears on page 420 of Hasses's bibliography].

1841/2. Receipts in 1841/2 on the Eastern and Juniata divisions of the canal and expenditures and liabilities March 1 to Nov. 30. (A.R. canal comrs. 1841/2: 13-14.)

JUNIATA DIVISION: FRANKSTOWN LINE

1831 Dec. 15. Frankstown line of Juniata division; length of canal and slack water; construction; estimated cost; line probably ready for navigation Oct. 1. (A.R. canal comrs. 1830/1: 31.)
Paging from Sen. doc. ed.

1832 Frankstown line; table: names of contractors, whole amt. of work estimated and paid to them on each section and item of incidental work; amt. of work estimated and paid Nov. 26, 1831-Oct. 31, 1832, with percentage retained. (*Same* 1831/2: 135.)
Paging from Sen. doc. ed.; omitted from dept. editions.

1832 Nov. 29. Funds appropriated and disbursements made on Frankstown line; length of line and whole cost. (*Same* 1831/2: 30-31.)
Paging from Sen. doc. ed.

1833 Table: length of each level and incidental work on Frankstown line. (*Same* 1832/3: 190-191.)
Found only in doc. ed.

RECEIPTS AND EXPENDITURES

1831/3. Funds appropriated for Frankstown line; whole cost. (A.R. canal comrs. 1832/3: 31-32.)

1833 Table: Frankstown line; amt. due and unpaid and amt. required to finish line. (*Same* 1832/3: 190-191.)
Found only in doc. ed.

1834 Tables: amt. paid to whom and for what purpose on Frankstown line, including damages paid. (*Same* 1833/4: 75-79.)
Paging from Collected docs.

JUNIATA DIVISION: HUNTINGDON BREACH

See also below, RECEIPTS AND EXPENDITURES

1838 Repairs on works between Huntingdon and Hollidaysburg; loans; cost; standing provision to meet similar cases recommended. (Govs. mess. (Ritner) Dec. 27, 1838.)

1838 July. Corresp. of Bank of U. S. and Gov. of Penn. rel. to Juniata disaster and funds for repair. (Sen jol. 1838/9 v. 2: 27-28; House jol. 1838/9 v. 2 [pt. 1]: 65-67 (doc. 9).)

1839 June 11. Report of committee (Cox) apptd. under act of Feb. 9, making apprns. to canals and r.rs. of commonwealth, etc., to examine accts. for repairing the breach on the Juniata division of Penn. Canal. (House jol. 1838/9 v. 1: 1264-1265.)

1840 Jan. 14. Letter from auditor gen. (Espy) with a report rel. to accts. for repairs of canal between Huntingdon and Hollidaysburg during the summer of 1838. (Sen. jol. 1840 v. 2: 121-254.)

1840 Jan. 15. Report of the auditor gen. (Espy) rel. to accts. for repair of canal between Huntingdon and Hollidaysburg. Harrisburg: Holbrook, Henlock & Bratton, 1840. 15 pp.

Copy seen in N. Y. Public Library. 1000 copies in English and 500 in German ordered prtd. by the Senate and House resp. (Sen. jol. 1840 v. 1: 86; House jol. 1840 v. 1: 77.)

1840 Same. (House jol. 1840 v. 2 [pt. 1]: 225-364 (doc. 18); Sen. jol. 1840 v. 2: 121-254.)
Journal includes testimony omitted from separate.

1841 Jan. 13. Report of secy. of commonwealth (Shunk) with corresp. with Bank of U. S., rel. to loan authorized for repair of Huntingdon breach. (House jol. 1841 v. 2: 95-96 (doc. 20).)

1841 Feb. 9. Veto (Porter) of bill to authorize payment of certain loans obtained from Bank of U. S. and of Harrisburg Bank, for repair of Huntingdon breach. (Sen. jol. 1841 v. 1: 214-215; House jol. 1841 v. 1: 275-276.)

1841 Feb. 25. Communication from secy. of commonwealth (Shunk) rel. to disbursement of money on Huntingdon breach under act of June 11, 1840. (House jol. 1841 v. 2: 446-448 (doc. 116).)

1841 March 27. Veto (Porter) of res. rel. to disbursement of money for the repair of the Huntingdon breach. (*Same* 1841 v. 1: 658-660); Sen. jol. 1841 v. 1: 578-580.)

1841 Apr. 12. Communication from secy. of commonwealth (Shunk) rel. to disbursement of money on Huntingdon breach. (House jol. 1841 v. 1: 535-537 (doc. 162).)

1841 Apr. 15. Communication from canal comrs. rel. to money disbursed on Juniata breach of the Penn. Canal. (*Same* 1841 v. 2: 745-746 (doc. 169).)

1841 Apr. 17. Communication from bd. of canal comrs. in reply to Sen. res. of Apr. 13, requesting information as to authority by which the agent was apptd. to assist the auditor gen. in examination of vouchers of the officers entrusted with the receipts and disbursements of money expended in repairing breach on the Juniata division in 1838, days service rendered and out of what fund he was paid. (Sen. jol. 1841 v. 1: 771-774.)

1841 May 3. Report of committee on judiciary system (Pearson) on report of canal comrs. of Apr. 17 in reply to Sen. res. of Apr. 13, inquiring by what authority they apptd. an agent to assistant the auditor gen. in examining vouchers of officers entrusted with funds for repairs on Juniata division of Penn. Canal in 1838 etc. (*Same* 1841 v. 1: 990-994.)

RECEIPTS AND EXPENDITURES

1840 Expenses on acct. of Huntingdon breach, Nov. 1-30. (A.R. auditor gen. 1839/40: 66.)

RESERVOIRS

serial
A

1839-1841. Report of engineer on eastern and western reservoirs.

In Documents as follows:
Wm. E. Morris, engineer
1839 in A.R. canal comrs. 1838/9: 158-164.
Paging from House doc. ed.
1840 in A.R. canal comrs. 1839/40: 401-405*+

1841 in A.R. canal comrs. 1840/1: 217-220.*
Found in all editions except House dept. ed.

B

1841 Reports of superintendents of eastern and western reservoirs.
In Documents as follows:

J. Riter, Eastern Reservoir; D. Watson, Western Reservoir.
1841 in A.R. canal comrs. 1840/1: 220-224.*+

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* Paging from Collected docs.
+ Omitted from dept. editions.

non-serial

1834 Nov. 22. Report of engineer (S. Welch) upon a reservoir for Western division, with estimate of cost. (A.R. canal comrs. 1834/5: 54-58.)
Paging from House doc. ed.; occurs in all editions except House dept. ed.

1835 Dec. 2. Propriety of having reservoir constructed near Johnstown. (*Same* 1834/5: 11-12.)

1838 See below, Western division, this date.

1838 Dec. 21. For apprn. for construction of reservoirs on Western division. (A.R. canal comrs. 1837/8: 14.)
Paging from Senate doc. ed.

1840 Jan. 21. Reservoirs authorized by act of Feb. 18, 1836 never commenced; surveys made for reservoirs under act of July. 19, 1839; apprn.; sites of Eastern and Western reservoirs and estimated cost. (*Same* 1838/9: 45-46.)
Paging from House ed.

1842 Jan. 15. Eastern and western reservoirs, depth of water at dam; area of land flooded; available contents of pool; estimated cost of work. (*Same* 1840/1: 13-15.)
Paging from Sen. ed.

1842 Completion of reservoirs on the eastern end and western sides of the Allegheny Mt. urged; amt. expended; estimated cost. (*Same* 1841/2: 18-19.)

1843 Dec. 30. Necessity of completing eastern and western reservoirs at Allegheny Mt. (*Same* 1842/3: 8.)

1844 Dec. 31. See above, Penn. Canal [and R.R.], this date [not reproduced here].

1846 Dec. 31. Eastern reservoir put under contract to complete. (A.R. canal comrs. 1845/6: 11.)

1847 Dec. 30. Completion of eastern reservoir; cost of construction; amt. appropriated; balance to be provided; etc. (*Same* 1846/7: 13

1848 Jan. 5. Final estimates of work done by H. L. Patterson on the eastern reservoir and feeder, etc. connected therewith. (Jol. bd. canal comrs. 1848: 17-19.)

1848 Dec. 26. Propriety of completing reservoir upon western side of Allegheny mts. (A.R. canal comrs. 1847/8: 12-13.)

1850 March 6.. Estimates of work and material on eastern reservoir. (Jol. bd. canal comrs. 1850: 33-34.)

1852 Jan. 9. See above, Juniata division, this date.

1852 Jan. 9. Work resumed on western reservoir; cubic feet of water available when full; estimated cost of work; amt. appropriated and amt. to be appropriated. (A.R. canal comrs. 1850/1: 18.)

1852 Dec. 31. Early completion of western reservoir; depth of water accumulated; ample supply to canal during period of low water. (*Same* 1851/2: 18.)

DAMAGES

1842 Feb. 9. Report of committee (Plumer) on private claims for damages on petition of Joseph M'Cune, for compensation for a tract of 310 acres of land occupied by the commonwealth in the construction of the eastern reservoir. (Sen. jol. 1842 v. 1: 263-264.)

RECEIPTS AND EXPENDITURES

1845/6-1849/50. Expenses of eastern reservoir of Penn. Canal. (A.R. auditor gen. 1845/6: (p. 44)—*same* 1849/50.)

Omitted 1848/9.

WESTERN DIVISION

Extended from Johnstown to Pittsburgh.

serial

A

1826-1829. Report of acting commissioner

In Documents as follows:

Abner Lacock, acting commissioner

1826 in Report canal commissioners [1826/7], first report Dec. 1826: 87-90.

1827 in Report canal comrs. 1827: 27-29 (series 3, no. 1).

Paging from Senate ed. (v. 2).

1828 in A.R. canal comrs. 1827/8: 17-19 (series 1, no. 1).

James Stevenson, commissioner

1829 in A.R. canal comrs. 1828/9: 159-169.

Paging from Sen. doc. ed.

B

1828-1841. Report of engineer

In Documents as follows:

Jas. D. Harris, engineer

1828 in A.R. canal comrs. 1827/8: 19-21; 24-38 (series 1, nos. 2, 4).

Allegheny, Pine Creek, and Ligonier lines.

Alonzo Livermore, engineer
1828 in A.R. canal comrs. 1827/8: 22-24 (series 1, no. 3).
Kiskiminetas and Conemaugh lines.
1829-1841. Report of engineer
In Documents as follows:
Sylvester Welch, engineer
1829 in A.R. canal comrs. 1828/9: 169-177.*
1830 in A.R. canal comrs. 1829/30: 89-97.*@
1831 in A.R. canal comrs. 1830/1: 134-167.*@
1832 in A.R. canal comrs. 1831/2: 93-96.+@
1833 in A.R. canal comrs. 1832/3: 98-106.*
1834 in A.R. canal comrs. 1833/4: 88-92.*
1835 in A.R. canal comrs. 1834/5: 60-65.+
Chas. T. Whippo, engineer
1836 in A.R. canal comrs. 1835/6: 88-89.*
Estimates for repairs only.
1837-1838 not found.
Wm. E. Morris, engineer
1839 in A.R. canal comrs. 1838/9: 165-168.#
1840 in A.R. canal comrs. 1839/40: 179-183.*
1841 in A.R. canal comrs. 1840/1: 139-142.*

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* Paging from Senate doc. ed.
+ Paging from House doc. ed.
# Paging from Collected docs.
@ Omitted from dept. editions.

C

1830-1835. Report of superintendent
In Documents as follows:

S. Jones, supt.
1830 in A.R. canal comrs. 1829/30: 80-89.*
1831 in A.R. canal comrs. 1830/1: 129-133*@
1832 in A.R. canal comrs. 1831/2: 89-92.+@
1833 in A.R. canal comrs. 1832/3: 92-97.*@
1834 in A.R. canal comrs. 1833/4: 83-87.*
1835 in A.R. canal comrs. 1834/5: 52-54.+
Occurs in all editions except House dept. ed.

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* Paging from Senate doc. ed.
+ Paging from House doc. ed.
@ Omitted from dept. editions.

1825 Dec. 30. See above, Juniata division, this date.

1826 Stmt. by Nathan S. Roberts and James D. Harris, engineers as to location and designation of canal routes on east side of Allegheny River and through city of Pittsburgh. (Report canal comrs. [1826/7], first report, Dec. 1826: 95-96.)

1826 Estimate of expense of that portion of Western division below Pine Creek by crossing Allegheny from west to east side, thence on east side to terminate in Allegheny at lower end of Washington St., Pittsburgh. (*Same* 1826/7], first report, Dec. 1826: 73-74.)

1826 Copy of contract and specification for aqueduct over Allegheny River near mouth of Kiskiminetas. (*Same* [1826/7], first report, Dec. 1826: 90-93.)

1826 Estimate of the expense of completing canal from Pine Creek to Pittsburgh on each side of Allegheny River. (*Same* [1826/7], first report, Dec. 1826: 84-86.)

1826 Apr. 26. Copy of letter from Nathan S. Roberts, engineer containing report of his proceedings up to Apr. 26, 1826. (*Same* [1826/7], first report, Dec. 1826: 54-56.)

1826 Apr. 30. Letter from Nathan S. Roberts, containing report and estimate of the first seventeen miles up the Allegheny River on eastern side. (*Same* [1826/7], first report Dec. 1826: 56-59.)

1826 May 18. Copy of report of Nathan S. Roberts upon survey and location of Western division of Penn. Canal with estimates of expense of constructing same on eastern and western side of Allegheny River. (*Same* 1826/7, first report, Dec. 1826: 59-73.)

1826 Aug. 9. Jt. report of D. B. Douglass and Wm. Strickland upon location of Western division now under contract. (*Same* [1826/7], first report Dec. 1826: 74-76.)

1826 Aug. 9. Report of Nathan S. Roberts upon location of Western division. (*Same* [1826/7], first report Dec. 1826: 77-78.)

1826 Nov. 30. Estimate by N. S. Roberts of sums necessary to complete that portion of Western division now under contract. (*Same* [1826/7], first report Dec. 1826: 79-84.)

1826 Dec. 7. Report of Gen. Lacock of his proceedings to ascertain to what extent releases could be procured upon the several routes through city of Pittsburgh. (*Same* [1826/7], first report Dec. 1826: 93-94.)

1826 Dec. 11. Commencement of work on Western division; cost of work up to Dec. 2, 1826, estimated sum requisite for completion. (*Same* [1826/7], first report, Dec. 1826: 9.)

1826 Dec. 11. Estimate of cost of canal on east and west side of Allegheny River from Pittsburgh to the Kiskiminetas; location decided upon. (*Same* [1826/7], first report, Dec. 1826: 11-14.)

1826 Dec. 11. Plan for feeder to commence at the Kiskiminetas and to cross the Allegheny at the head of the main canal. (*Same* [1826/7], first report Dec. 1826: 15.)

1826 Dec. 11. Line of canal from Kiskiminetas to Pine Creek put under contract; cost of work; estimated sum necessary to complete line under contract. (*Same* [1826/7], first report Dec. 1826: 15-16.)

1826/7. List of contracts, etc., Western division. (Report canal comrs.. 1827: series 3, nos. 3-4.)

1826 Feb. Res. of the bd. (*Same* 1827: 9-10 (series 2, no. 2).)

Paging from Senate ed. (v. 2).

1827 Res. of Councils of Pittsburgh. (*Same* 1827: 11-12 (series 2, no. 4).)

Paging from Senate ed. (v. 2).

1827 Feb. 5. Communication from Pittsburgh committee to the bd. (*Same* 1827: 9 (series 2, no. 1).)

Paging from Senate ed. (v. 2). See also Proceedings, in relation to the western termination, of the Penn. Canal. *Pittsburgh*, 1826. 8 pp.

"At a very numerous meeting of the citizens of Pittsburgh, convened in pursuance of public notice, at the court house on . . . the 8th of June, John M. Snowden, mayor . . . was called to the chair . . . when it was
"*Resolved*, by the citizens of Pittsburgh, in town meeting assembled . . .
"*Resolved*, That . . . be appointed a committee to attend at Harrisburg, in behalf of the people of this city . . "*Resolved*, That copies of these proceedings . . . be furnished to each of the Canal Commissioners, and that the same be published in the different papers of this city.
"The following correspondence between the committee . . . and the . . . Board of Canal Commissioners, is published with a view of reporting to the citizens of Pittsburgh, the manner in which the committee discharged the duties assigned to them." (pp. 2-3.)

1827 Feb. 6. Report of committee on inland navigation and internal improvement (Lehman) rel. to location of western section of Penn. Canal. (House jol. 1826/7 v. 2: 332 (doc. 179).)

1827 Feb. 5. Letter from representatives of the select and common councils and citizens generally of Pittsburgh proposing that the canal comrs. rescind the res. suspending work on the canal from Pine Creek down to the city of Pittsburgh, etc. (A.R. canal comrs. 1827: 141.)
Paging from Sen. ed. v. 2.

1827 Feb. 13. Instructions to N. S. Roberts, engineer (Report canal comrs. 1827: 10-11 (series 2, no. 3).)
Paging from Senate ed. v. 2.

1827 May 1. Letter from N. S. Roberts, engineer, to the pres. of the bd. of canal comrs. (*Same* 1827: 13-25 (series 2, no. 5).)
Paging from Senate ed. (v. 2).

1827 Nov. 29. Stmt. of work remaining to be done upon the Western division of the Penn. Canal, from sec. 92 to the Monongahela, with estimate of cost; by J. D. Harris. (*Same* 1827: 29-30 (series 3, no. 2).)
Paging from Senate ed. (v. 2).

1827 Dec. 10. Report of engineer, Alonzo Livermore on the Kiskiminetas division of the Penn. Canal. (Report, canal comrs. 1827: 42-47 (series 3, no. 13).)
Paging from Senate ed. (v. 2).

1827 Dec. 25. Work on the canal from the mouth of the Kiskiminetas to Blairsville. (*Same* 1827: 10.)

1827 Dec. 25. Schedule showing the names of contractors, amt. of contracts, probable cost, etc. on the Kiskiminetas division. (*Same* 1827: series 3, no. 7.)

1827/8. List of sections on the Ligonier line, names of contractors and prices for each description of work. (*Same* 1827/8: folding table 12 following p. 38 (series 1, no. 13).)
Paging from Senate doc. ed.

1827 List of contracts entered into on the Kiskiminetas and Conemaugh lines Western division, Penn. Canal, Nov. 1, 1827-Nov. 1, 1828. (*Same* 1827/8: folding table 14, following tables p. 38)series 1, nos. 11-12).)
Paging from Sen. doc. ed.

1827 Ditto; Pine Creek line. (*Same* 1827/8: folding table 13, following p. 38 (series 1, no. 10).)
Paging from Sen. doc. ed.

1827 Ditto; Allegheny line, secs. 1-92. (*Same* 1827/8: folding table 13, following p. 38 (series 1, no. 9).)
Paging from Sen. doc. ed.

1828 Stmt. of labor done on Allegheny line, Western division, from commencement of work to [Nov., 1828], beginning on the north side of the Allegheny River, opposite the mouth of the Kiskiminetas and ending at sec. 92, near Pine creek. (*Same* 1827/8: folding tables 1-4, following p. 38 (series 1, no. 5).)
Paging from Sen. doc. ed.

1828 Ditto; Pine Creek line, secs 92-113; also the aqueduct over the Allegheny at Pittsburgh, and the work in the city of Pittsburgh. (*Same* 1827/8: folding tables 5-6 following p. 38 (series 1, no. 6).)
Paging from Sen. doc. ed.

1828 Ditto; Kiskiminetas line, from commencement to Nov. 25, 1828. (*Same* 1827/8: folding tables 7-10, following p. 38 (series 1, no. 7).)
Paging from Sen. doc. ed.

1828 Ditto; Kiskiminetas and Conemaugh line, Western division, secs. 79-125, above Blairsville. (*Same* 1827/8: folding tables 11-12, following p. 38 (series 1, no. 8).)
Paging from Sen. doc. ed.

1829 Feb. 19. Report of committee on inland navigation and internal improvement (Denison) rel. to petition of contractors on Western division of Penn. Canal praying for additional compensation. (House jol. 1828/9 v. 2: 592-595 (doc. 215).)

1829 March 27. Report of committee (Scott) apptd. on report of acting commissioner (Lacock); aqueduct across the Allegheny. (Jol. bd. canal comrs. 1829.)

1829 Apr. 6. Report of committee on inland navigation and internal improvement (Blair) rel. to navigation of Kiskiminetas and Conemaugh rivers. (House jol. 1828/9 v. 2: 711-712 (doc. 312).)
Obstructions by building of dams in construction of the Penn. Canal.

1829 June 9. Report of committee (Mitchell) on memorial of James M'Avey & Co., rel. to contract for making the Pittsburgh tunnel. (Jol. bd. canal comrs. 1829.)

1829/30. Western division; tables: contracts entered into on Pittsburgh and Pine Creek lines, Allegheny line and Kiskiminetas and Conemaugh lines between Nov. 20, 1829 and Nov. 19, 1830; ditto Ligonier line; labor done and money paid on Pittsburgh and Pine creek line; work done and money paid on Allegheny line, Kiskiminetas and Conemaugh line; ditto Ligonier line. (A.R. canal comrs. 1829/30: 97, tables 1-7.)
Paging from Sen. doc. ed.; omitted from dept. editions.

1830 Table: moneys paid, estimated costs, amts due, etc., on Ligonier line. (*Same* 1829/30: 82.)
Paging from Sen. doc. ed.; omitted from dept. editions.

1830 Dec. 21. Construction of line from section 57 of Ligonier line to suitable point for connection of portage road and canal at Johnstown; estimated cost and actual cost of work, other work and cost on Ligonier line/. (*Same* 1829/30: 53-56.)
Paging from Sen. doc. ed.; omitted from dept. editions.

1830 March See above, Penn. Canal [and R.R.]. Frauds, etc. [not reproduced here].

1831 Dec. 15. Difficulty of construction; error in location of canal (Western division); necessary repairs, (A.R. canal comrs. 1829/30: 52-53.)
Paging from Sen. doc. ed.; omitted from dept. editions.

1832 Feb. 21. Report of engineer (Welch) employed upon Western division of Penn. Canal; estimate of cost of repairing and putting division in order after damage by freshets, etc. (Sen. jol. 1831/2 v. 1: 395-398; House jol. 1831/2 v. 2: 678-683.)

1834 Dec. 2. Western division; new work put under contract and estimated cost. (A.R. canal comrs. 1833/4: 84-85.)

Paging from Collected docs.

1835 Feb. 5. Report of committee on claims (T. S. Smith) upon petition of Simon Lonergan resp. losses by contract on Western division of Penn. Canal. (House jol. 1834/5 v. 2: 537-538 (doc. 130).)

1837 Feb. 28. Communication from canal comrs. stating reasons for not constructing canal around Blairsville bridge at Bairdstown, Westmoreland Co. (Sen. jol. 1836/7 v. 2: 3810-382.)

1837 Dec. 6. Western division, date of opening and closing of navigation; poor condition of division; tolls and repairs for fiscal year. (A.R. canal comrs. 1836/7: 15.)

Paging from Collected docs.

1838 Western division; amt required for repairs and to build reservoir and complete Grant's Hill tunnel. (*Same* 1837/8: 163.)

Paging from House doc. ed.

1838 Dec. 21. Western division; necessity for construction of reservoirs; extension of arch at Grant's Hill tunnel put under contract; amt. expended for repairs and amt. of tolls for year. (*Same* 1837/8: 11.)

Paging from House doc. ed.

1839-1841. Stmt. of contracts and contract prices, etc., on Western division of Penn. Canal. (House jol. 1841 v. 2: 166 and folding table (doc. 89).)

Transmitted by auditor gen. (Espy) Feb. 11, 1841.

1840 Jan. 21. Western division; length, no. of locks, general condition, improvements and repairs; amt. required for repairs. (A.R. canal comrs. 1838/9: 22-24.)

Paging from House doc. ed.

1841 Feb. 11. Communication from auditor gen. (Espy) acc. with a stmt. of contracts on Western division of Penn. Canal filed subsequent to Nov. 1, 1839. (House jol. 1841 v. 2: 166, 2 folding tables.)

1844 Jan. 27. Report of committee on internal improvements (Farrelly) on remonstrance of mayor of City of Allegheny against law authorizing mayor, aldermen and citizens of Pittsburgh to rebuild or repair aqueduct over Allegheny River opposite City of Pittsburgh. (Sen jol. 1844 v. 1: 139-140.)

1846 Description of repairs on Western division. (A.R. canal comrs. 1845/6: 10.)

1849 Apr. 9. Report of jt. investigating committee (Swartzwelder) rel. to public works. (House jol. 1849 v. 2: 671-709 (doc. 91).)

Investigation was limited to the Western division of the canal, the Allegheny Portage R.R. and the Columbia and Philadelphia R.R.

1849 Dec. 28. Western division; repairs made and contemplated; completion of Youghiogheny slack water to West Newton will throw increased trade upon canal if transportation be lessened; will also enable boats from Beaver and cross cut canals to pass on to Penn. Canal instead of stopping and unloading cargoes at Pittsburgh. (A.R. canal comrs. 1848/9: 13, 14.)

1850 Feb. 2. Communication from auditor gen. (Purviance) rel. to accts. of J. F. M'Cague, late supervisor Western division of Penn. Canal. (Sen. jol. 1850 v. 2: 683.)

1852 Jan. 9. Western division; length and extent; no. dams, locks and aqueducts; lockage; almost entire suspension of transportation during part of season on acct. of low water. (A.R. canal comrs. 1850/1: 15.)

1853/4. Abstr. of operations on Upper and Lower Western division; Johnstown to Tarr's Lock, excluding reservoir; Tarr's Lock to Pittsburgh. (*Same* 1853/4: 19-20.)

1858 Apr. 21. Communication from canal comrs. rel to rebuilding aqueduct over Allegheny River near Pittsburgh. (Legisl. docs. 1858: 799.)

CLAIMS

1830 March 19. Report of committee (Forrey) on petition of S. R. Richard (Richards?). (Jol. bd. canal comrs. 1830/1.)

1830 March 20. Report of committee (Mitchell) on application of John Keen resp. water line furnished to contractors on the Western division, etc. (*Same* 1830/1.)

1830 March 20. Report of committee (Forrey) on memorial of S. R. Richards contractor on the Kiskiminetas line. (*Same* 1830/1.)

1830 Sept. 18. Claim of John Keen disallowed. (*Same* 1830/1.)

1831 July. 27. Documents rel. to claim of Geo. D. Foreman, contractor on Western division. (*Same* 1831/2.)

Stmts. of Alonzo Livermore and A. Lacock.

1832 Jan. 12. Report of committee (Mitchell) on claim of David Leech originating in construction of a dam across the Kiskiminetas River. (*Same* 1831/2.)

1833 March 16. Report of canal comrs. in compliance with res. of June 9, 1832, instructing canal comrs. to examine claim of Andrew Boggs, a salt mnfrer. of Westmoreland Co., for damages occasioned by construction of the Western division of the Penn. Canal. (Sen. jol. 1832/3 [v. 1]: 608-613; House jol. 1832/3 v. 2: 659-664 (doc. 199).)

1833 March 16. Same. (Jol. bd. canal comrs. 1833/4.)

1847 Jan. 31. Report of committee (Mitchell) on memorial and docs. of Saml. R. Richards resp. work on the Western division 1827-1828; review of his former petitions. (*Same* 1834/5.)

1847 Jan. 1. Report of canal comrs. rel to claim of M'Kown and Flood, contractors for cleaning out canal from the Allegheny to the Monongahela River. (Sen. jol. 1847 v. 2: 405-406 (doc. 48),)

1847 Same. (House jol. 1847 v. 2: 375-376 (doc. 60).)

1848 Feb 17. Report of bd. canal comrs. on claim of Dickey, Hawk and Marshall, contractors on Western division. (Sen. jol. 1848 v. 2: 346 (doc. 42).)

DAMAGES

[1826]-1827. Stmt. of damages paid by agreement, on Western division of Penn. Canal, from commencement to Dec. 12, 1827. (Report canal comrs. 1827: 41-42 (series 3, doc. 11).)

Paging from Sen. ed. (v. 2).

1827 Dec. 25. Arrangements rel. to damages for canal route through Pittsburgh, and for an aqueduct over the Allegheny; letting of contracts; cost; progress of work. (*Same* 1827: 8-9.)

1827 Dec. 25. Stmt. of damages agreed to be paid on the Kiskiminetas division of Penn. Canal. (*Same* 1827: 42 (series 3, no. 12).)

Paging from Sen. ed (v. 2).

[1827/8.] Stmt of amt. paid for damages on the Western division of the Penn. Canal. (A.R. canal comrs. 1827/8: 39 (series 1, no. 14).)

Paging from Sen. doc. ed.

1829/30. Western division; schedule of damages paid, between Nov. 20, 1829 and Nov. 20, 1830. (*Same* 1829/30: 97, table 6.)

Paging from Sen. doc. ed.; omitted from dept. editions.

1830-1832. Damages on the Western division July. 10, 1830-Jan. 18, 1832. (Jol. bd. canal comrs. 1832/3.)

Considered June 16, 1832.

1830 Jan. 28. Report of committee on claims (Buchanan) on petition of Arthur M'Gill for remuneration for loss of stages and horses, etc. on acct. of damage to road between Pittsburgh and Erie by locating the western section of the Penn. Canal. (House jol. 1832/3 v. 2: 417-418 (doc. 123).)

1830 March 25. Report of committee on inland navigation and internal improvement (Miller) upon petition of C. Magee and others rel. to damages to their property by running Penn. Canal through Grant's Hill. (*Same* 1832/3 v. 2: 275 (doc.. 217).)

1832-1833. Offers for damages on Western division, June 14, 1832- May 3, 1833. (Jol. bd. canal comrs. 1833/4).

Considered May 3, 1833.

1834 Jan. 14. Report of canal comrs., in pursuance of a res. of Apr. 8, 1833, rel. to canal damages on Grant' Hill. (Sen. jol. 1833/4 v. 1: 172-175; House jol. 1833/4 v. 2: 506-509 (doc. 100).)

1834 Dec. 2. Western division; stmt. of damages paid since last report; amt. of awards rejected; total amt. required to pay all damages should they hereafter be accepted. (A.R. canal comrs. 1833/4: 86-87.)

Paging from Collected docs.

1835 Feb. 10. Report of committee on claims (T. S. Smith) upon petitions of Jacob Horner, Jr., Jonas Horner and Jacob Stutzman on acct. of injuries to lands by Penn. Canal. (House jol. 1834/5 v. 2: 554 (doc. 147).)

1837 Jan. 12. Report of committee on claims (Hill) upon petitions of Jacob Horner and Jonas Horner for damages done by construction of state improvements. (*Same* 1836/7 v. 2: 297-298 (doc. 73).)

Stony Creek above Johnstown.

1837 Jan. 16. Report of committee on claims (Trego) upon petition of Jos. Harshberger for compensation for damages, sustained from construction of feeder at Johnstown. (*Same* 1836/7 v. 2: 364 (doc. 92).)

1837 Jan. 16. Report of committee on claims (Darsie) upon petition of Jacob Stutzman for compensation for damages sustained by construction of Stony Brook feeder. (*Same* 1836/7 v. 2: 363 (doc. 90).)

1841 Jan. 1. Western division; damages to line; capacity of canal cannot be maintained in dry seasons until western reservoir is completed; repairs needed and under contract. (A.R. canal comrs. 1839/40: 27-28.)

1844 Jan. 19. Report of committee on private claims for damages (Darsie) on petition of Geo. Murray for remuneration for land appropriated to the use of the western reservoir, Penn. Canal. (Sen. jol. 1844 v. 1: 100-101.)

1845 June 3. Table: damages on Western division and French creek. (Jol. bd. canal comrs.. 1845: 88; 92.)

1854 Feb. 7. Communication of bd. of canal comrs. rel. to award in favor of Allegheny and Butler Plank Road Co. for damages sustained by construction of Western division of Penn. Canal. (Legisl. docs. 1854: 386-388.)

EMPLOYEES AND OFFICERS

1827 Dec. 25. List of engineers, asst. engineers and subalterns employed in the engineer dept., from Kiskiminetas to Pittsburgh. (Report canal comrs. 1827: 37-38 (series 3, no. 9).)

Paging from Sen. ed. (v. 2).

1827 Dec. 25. List of persons employed in the Kiskiminetas division of the canal line, with wages of each. (*Same* 1827: 39-40 (series 3, doc. 10).)

Paging from Sen. doc. ed.

1828 Persons employed in the engineer dept.; Ligonier line, Allegheny and Pine Creek lines; Kiskiminetas and Conemaugh line, Kiskiminetas line. (*Same* 1827/8: 40-42 (series 1, no. 15).)

Paging from Sen. doc. ed.

1829/30. See below, RECEIPTS AND EXPENDITURES, this date.

1830 Dec. 21. Western division: schedule of engineers and other persons employed. (A.R. canal comrs. 1829/30: 97 (tables 10-11).)

Paging from Sen. doc. ed.

RECEIPTS AND EXPENDITURES

1826 Stmt. of expenses of engineers dept. on western sec. of Penn. Canal from Apr. 20-Dec. 6. (Report canal comrs. [1826/7], first report, Dec. 1826: 87.)

[1826]-1827. Stmt. of work done and money paid on Kiskiminetas division from sec. 1 to 78, from commencement to Dec. 10, 1827. (*Same* 1827: 36 (series 3, no. 8).)

Paging from Sen. ed. (v. 2).

1826 Stmt. of work done, and money paid upon contracts, on Western division of Penn. Canal. (*Same* 1827: 33-35 (series 3, nos. 5-6).)

Paging from Sen. doc. ed. (v. 2).

1829/30. Schedule of payments to engineers and other persons between Nov. 20, 1829 and Nov. 20, 1830; schedule of misc. payments. (A.R. canal comrs. 1829/30: 97, tables 8 and 9.)

Paging from Sen. doc. ed.; omitted from dept. editions.

1830 Dec. 21. Western div.; table: amt. of payments by former and present acting commissioner together with probable amt. required to finish same; total cost, original, estimates, etc. (Report canal comrs. 1828/9: 166.)

Paging from Sen. doc. ed.

1831/2. Expenditures between Nov. 20, 1831 and Nov. 1, 1832. (A.R. canal comrs. 1831/2: 112, stmts. 1, 5, 6, 7, 8.)

Paging from Sen. doc. ed.; omitted from dept. editions.

1832 Western division; general abstr. of money expended during past year on old and new work, percentage and balances due on same, and estimated amt. to finish whole line. (*Same* 1831/2: 115-117.)

Paging from Sen. doc. ed.; occurs only in doc. ed.

1832 Western division; report of supt. giving principal disbursements on line. (*Same* 1831/2: 105-108.)

Paging from Sen. doc. ed.; omitted from dept. editions.

1834 Western division; disbursements on Stony Creek feeder. (*Same* 1833/4 v. 2: 83.)

Paging from Collected docs.

1841 See above, Penn. Canal [and R.R.]. RECEIPTS AND EXPENDITURES, this date [not reproduced here].

1841/2. Receipts on the Western division for the year ending Nov. 30, 1842 and expenditures and liabilities March 1 to Nov. 30, 1842. (A.R. canal comrs. 1841/2: 15.)

PART D — LISTING OF ARCHIVAL MATERIALS DERIVED FROM MARTHA L. SIMONETTI'S *INVENTORY OF CANAL COMMISSIONERS' MAPS IN THE PENNSYLVANIA STATE ARCHIVES* (1968)

PART I

JUNIATA DIVISION

BOX 3: 1830-1841, n.d.

Entry from Item c. 11: {Great Line on Dividing Ridge Between Big and Little Juniata Rivers}, n.d. Shows: Camp. 1 section

Entry from Item c. 11: {Myer's Spur}, n.d. Shows: Camps, Road to Hollidaysburg 1 section

BOX 8: n.d.

1-22 {Chiefly drawings for features on the Juniata Division Canal, some of them executed by Theo. Franks for Engineer DeWitt Clinton, Jr.}

{1} Plan of a Tow Path Bridge at Duncan's Island, n.d.

{2} Lock of 8 Feet Lift, n.d. Shows: Elevation, Ground Plan. 4 sections

{3} Raystown Guard Lock, n.d. Shows: Elevation, Ground Plan. 6 sections

{4} Outlet Lock, n.d. Shows: Elevation, Ground Plan. 6 sections

{5} Proposed Aqueduct at Duncans Island, n.d. Shows: Elevation, Ground Plan. 3 sections

{6} Dam at Aughwick Falls, n.d. Shows: Elevation, Ground Plan, Section of Dam, Cross Section. 6 sections

{7} Shute in Dam Below Raystown Branch, n.d. 6 sections

{8} The Proposed Aqueduct at Duncan's Island, Number 1, n.d. Shows: Elevation, Ground Plan, Cross Section. 6 sections

{9} Proposed Aqueduct at Duncan's Island, Number 2, n.d. Shows: Elevation, Ground Plan, Cross Section. 3 sections

{10} Juniata Aqueduct at Shaver's Ford, n.d. Shows: Elevation, Ground Plan, Cross Section. 4 sections

{11} Combined Locks, n.d. Shows: Guard Lock, Lock of 9 feet lift. 4 sections

{12} Map of the Susquehanna & Juniata Canal, n.d. 6 sections

{13} Farm and Road Bridges, n.d. 6 sections

{14} Lock of 7 foot Lift, n.d. Shows: Elevation, Ground Plan, Mitre Sill and Gate. 6 sections

{15} Duncan's Island, Section of Canal, n.d. Shows: Canal around Onion-Bottom Hill, Petersburg, Clark's Ferry, Juniata & Susquehanna Rivers. 4 sections

{16} Juniata Aqueduct at Jack's Narrows, n.d. Shows: Elevation, Ground Plan, Cross Section. 6 sections

{17} Plan of Works at Aughwick Falls. Juniata Canal Office, Lewistown, Theo Frank, n.d. Shows: Elevation, Gate, Mitre-sill, Abutment of Dam, Lift-Lock, Guard Lock. 6 sections

{18} Lock of 8 feet lift, n.d. 4 sections

{19} Guard and Lift Lock, n.d. 4 sections

{20} Juniata Aqueduct at Jack's Narrows, n.d. 4 sections

{21} Drawings of Aqueduct, unfinished, n.d. 4 sections

{22} Lost Creek and Cockquelamas Creek Aqueducts, n.d. 4 sections

BOX 10: n.d.

Maps of Incidental Work etc. upon the Frankstown Line of the Juniata Division. 1 section, 8 1/4 x 4

a. Diagram of the great bend of the Juniata River between Drakes Ferry and the mouth of Beaver Dam Creek, n.d. 1 section

b. Plans for dwelling, n.d. 1 sheet

c. Feeder Aqueduct, n.d. 2 sheets

d. Recess-Mitre Sill & Hollow Quoin, n.d. 1 section

e. Guard Lock, n.d. 1 section
f. Feeder Drop Weir, n.d. 1 section
g. Stop Gates, n.d. 1 section
h. Gate and Irons for a Lock of 8 feet lift, n.d. 1 section
i. Locks, n.d. 2 sections
j. Lock No. 38. Lift 11 1/2 feet, n.d. 2 sections
k. Railing on Sections No. 48 & 49, n.d. 1 section
l. Sheeting & Planking of Culvert on Sections No. 1, Hollidaysburg, n.d. 1 section
m. Culvert of 4 ft. span on Section No. 52, n.d. Shows: Specifications. 1 section
n. Dam and Slope, n.d. 1 section, 8 1/2 x 11 1/2
o. Dam at Hollidaysburg, n.d. 1 section
p. Plan of Dams, Nos. 2, 3, 12, & 13, n.d. 1 section
q. Grand Mausoleum on the Juniata, Dam No. 4, J. Criswell, Act 45, n.d. 1 section
r. Plan of Dam No. 6, n.d. 1 section
s. Plan of Dams No. 5, 7, 8, 9, n.d. 1 section
t. Dam No. 9, n.d. 1 section
u. Dam No. 10, n.d. 1 section
v. Dam No. 11, n.d. 1 section
w. Dam No. 12, n.d. 1 section
x. Dam No. 13, n.d. 1 section
y. Dam No. 14, n.d. 1 section
z. Tow Path & Farm Bridge, n.d. 1 section
a′ Farm Bridge No. 43 on Section No. 10, n.d. 1 Section
b′ Public Bridge on Section No. 1 at Hollidaysburg, n.d. 1 section
c′ Tow-Path Bridge on Section No. 47, n.d. 1 section

d′ Feeder Bridge, n.d. 1 section

e′ Bridge with 16 ft. Span, n.d. 1 section

f′ Bridge on Section 52 near Mr. Lytle's, n.d. Reverse side: Height of Dam. 2 sections

g′ Tow-Path Bridge, n.d. Shows: 30 ft. Span, Cross Section. 1 section

h′ Feeder Bridge, n.d. 1 section

i′ Tow Path Bridge No. 3. A mile above Williamsburg, n.d. 1 section

j′ Dam and Locks, n.d. 2 sections

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BOX 11: 1839-1841

c. Profile of Stone Mountain Line. Middle Route (Harrisburg to Pittsburgh Rail Road). Surveyed under the Direction of Charles L. Schlatter, C. E. by John A Roebling, Principal Assistant, 1841. From 1 mile, West Branch of Kishicoquillas Creek to Manor Hill Town. 5 sections

h. Middle Route. Proposed Route along the Juniata, Perrysville, n.d. Station No. 955 to Station No. 1538. Sections No. 17 to No. 25, No. 21 missing. Shows: Perry's Ville, Mifflin, Canal. 8 sections

BOX 15: n.d.

a. A set of eleven surveys on the Juniata River and the Juniata Canal, Huntingdon Division, n.d.

No. 1 From Halings' to Mays', n.d. 1 section

No. 2 From Steele's to Lyons', n.d. 1 section

No. 3 From Dull's to Wakefields', n.d. 1 section

No. 4 From Wakefields' to McVay, n.d. 1 section

No. 5 From James Mitchell's to Galbraith, n.d. 1 section

No. 6 From beyond Gallowaysford, n.d. 1 section

No. 7 From Newton Hamilton to Aughwick Valley, n.d. 1 section

No. 8 Over Jacks' Mountain, n.d. 1 section

No. 9 From Mill Creek to Hares' Run, n.d. 1 section

No. 10 From Smith's Mill to beyond Raystown Branch, n.d. 1 section

No. 11 Smith's Island, n.d. 1 section, 8 x 13

b. Eight Surveys of the Juniata River and the Juniata Division Canal descending past Little Buffalo Creek, Thompsontown, Bill's Island, Mifflin, Mexico, n.d.

No. 1 From 1 to 4 miles, n.d. 1 section

No. 2 From 5 to 12 miles, n.d. 1 section

No. 3 From 13 to 18 miles, n.d. 1 section

No. 4 From 19 to 23 miles, n.d. Shows Thompsontown. 1 section

No. 4a From 24 miles past Mexico to 29 miles, n.d. 1 section

No. 5 From 30 miles past Mifflin, Bill's Island to 34 miles, n.d. 1 section

No. 6 From 35 to 40 miles, n.d. 1 section

No. 7 From 41 to 45 miles, n.d. 1 section

BOX 17: n.d.

Plans of Incidental Work on the Juniata Division.

(a.} Aqueduct over Brightfield's Run, n.d. Shows: Elevation, Ground Plan. Cross Section. 2 sections

{b.} Aqueduct over Kishicoquillas Creek, n.d. Shows: Elevation, Ground Plan, Cross Section. 2 sections

{c.} Aqueduct on Section 129, n.d. Shows: Elevation, Ground Plan, Cross Section. 2 sections

{d.} Aqueduct at Newton Hamilton, n.d. Shows: Elevation, Ground Plan, Cross Section. 2 sections

{e.} Aqueduct over Standing Stone Creek, n.d. [at Huntingdon?] Shows: Elevation, Cross Section. 1 section {f.} Beaver Creek Aqueduct, n.d. Shows: Elevation, Ground Plan, Cross Section. 2 sections

{g.} Works (Aqueduct) at Mill Creek, n.d. Shows: Cut for West Branch Aqueduct. 2 sections

{h.} General Plan for the Aqueducts, n.d. Shows: Elevation, Cross View, Horizontal Projection. 2 sections

{i.} Plan of Kishacoquillas Aqueduct, n.d. Shows: Elevation, Cross Section. 1 section

{j.} Plan for Aqueducts No. 1, 2, & 3. Aqueduct of 30 Feet Span, n.d. Shows: Section of Weir on Berm side. 1 section

{k.} Aqueduct over Mill Creek, n.d. Shows: Elevation, Ground Plan, Cross Section. 1 section

{l.} Tow Path Bridge over the Raystown Feeder, n.d. Shows: Elevation, Ground Plan. 2 sections

{m.} Trussle Bridge at North's Island, n.d. Shows: Elevation, Ground Plan. 2 sections

{n.} Plan of Public Bridges at Waynesburg & Huntingdon, n.d. Rough Draft. 1 section

{o.} Plan of Public Bridges at Waynesburg & Huntingdon, n.d. 1 section

{p.} Public Bridge at Lewistown, n.d. Shows: Elevation, Ground Plan. 1 section

{q.} Swinging Bridge, n.d. Shows: Elevation, Ground Plan, Abutment, Pier, Wheel Path, Protection Pier, Bridge Frame, Wheel. 2 sections

{r.} Bridge over Outlet Lock, n.d. Shows: Elevation, Crib, Lock, Ground Plan, Cross Section. 1 section

{s.} Swing Bridge, n.d. 1 section

{t.} Plan of Tow Path Bridge and Raystown Feeder, n.d. 1 section

{u.} Public Bridge, n.d. 1 section

{v.} Horse Bridge, n.d. Shows: Bill of Timber. 1 section

{w.} inadvertently not listed

{x.} Tow Path & Road, Section No. 67, n.d. 1 section {y.} Tow Path and Bridge Abutment, n.d. 1 section

{z.} Bridge at Huntingdon, n.d. Shows: Elevation, Abutment. 2 sections

{a'} Foot Bridge, n.d. Shows: Elevation, Ground Plan. 2 sections

{b'} Farm Bridge, n.d. Shows: Tow Path, Center, Berm, Elevation, Ground Plan. 2 sections

{c'} Road from Perrysville to Turnpike and intersecting Canal & road from Mifflin to Mexico. New Road Beginning at a post and from a Walnut tree on bank of River North 55 degrees, East 1.2 ps. thence-, n.d. Shows: Courses & distances, Canal. 1 section

{d'} Road commencing near the house of William Watson at the Poor Spring and connecting with the old road near the mouth of Big Buffalo Creek, n.d. Shows: Canal, Ferry. 2 sections

{e'} Culvert at Smith's Mill Race, n.d. Shows: Elevation, Ground Plan, End View. 1 section

{f'} Culvert over Holiday's Run, n.d. Shows: Elevation, Ground Plan, End View. 1 section

{g'} Culvert of 4 feet, n.d. Shows: Ground Plan, End View, Cross Section. 1 section

{h'} Culvert of 8 feet, n.d. Shows: Ground Plan, Cross Section, Longitudinal Section, End View. 2 sections

{i'} Culvert of 8 ft. Span, n.d. Shows: Wing Walls, Cross Section. 1 section

{j'} Section of Dam at North's Island, n.d. 1 section

{k'} Dam at Jack's Creek, n.d. Shows: Elevation, Ground Plan. 1 section

{l'} Kishicoquillas Feeder — Section, No. 1, n.d. Shows: Dam, Cross Sections, Sluice, Mill Race. Description. 2 sections

{m'} Kishicoquillas Feeder Drop Weir, n.d. Shows: Back view, Side view of plank, Cross Section through middle, Elevation of Bridge for Feeder, Ground Plan of Bridge. 2 sections

{n'} Morris Canal Lock House, Farmington Canal Lock House, Virginia Lock House, Erie Canal Lock House, n.d. Shows: Ground Plan. 1 section

{o'} Lock House B., Side View, Front View, n.d. Shows: Ground Plan. 1 section

{p'} Lock House A., Side View, Front View, n.d. Shows: Ground Plan. 1 section {q'} Morris Canal Lock House frame, n.d. 1 section, 7 1/2 x 13

{r'} River Locks at Aughwick Falls, n.d. 3 sections

{s'} Lock No. 2, n.d. 1 section

{t'} For Raystown and Aughwick Guard Locks, n.d. 1 section

{u'} Locks, n.d. 2 sections

{v'} Sluices at Aughwick Falls, n.d. Shows: Paddles, Front, Back & Edge, Dam Abutment, Elevation, Cross Section, Ground Plan, Protection Wall, Tow Path, Tow Bridge and Apron, Guard Bank, Tow Path. 2 sections

{x'} Sluice at Mifflin & Berm, n.d. 2 sections

{y'} Waste Weir, No. 1 & No. 2, n.d. 1 section

{z'} Waste Weir, n.d. Shows: Construction. 1 section

{a2} Waste Weir, Elevation, n.d. 1 section

{b2} Stone Waste Weir, n.d. 2 sections

{c2} Waste Weir, n.d. Shows: Elevation, Sections of Sluice Gate, Cross Section of Weir, Ground Plan, Transverse Section of Sluice. 2 sections

BOX 18 1836-1846:

k. A Map of S. Branch of Juniata River Surveyed with a view to Location of Eastern Reservoir, by William E. Morris, Civil Engineer, November 1839. Shows: Furnace, Saw Mill, Sett's Mill, Distillery, Turnpike, Newry, Dam, Feeder, Penna. Canal, Basin, Hollidaysburg. 2 sections

m. Wasteweir in Feeder, Eastern Reservoir, Stop Gates in Feeder, Eastern Reservoir, William E. Morris, Civil Engineer. Exhibited at Letting, March 10th 1846. 2 sections

y. Sketch of Weigh Lock at Huntingdon. 2 sections

BOX 19 1824-1840:

a. Map of Hollidaysburg and Gaysport, 1840. Shows: Penna. Canal, Allegheny Portage R.R., Weigh Lock, Phila. & Pittsburgh Turnpike. 1 section

j. Connection with the Portage Railroad, n.d. Shows: Gaysport, Hollidaysburg, Basin, Turnpike to Pittsburgh, Waltersburg, Duncansville. 2 sections

k. {No. 8} Section No. 43 to Section No. 46, Hollidaysburg, n.d. Work Map. Shows: Profile, Culverts, Viaduct, Basin. 2 sections

BOX 23 *1825-1871:*

b. Line of Canal through Huntingdon, n.d. Shows: Number of lot, proprietor's name, width, original depth, present depth, remarks. 1 section

h. Map Exhibiting that Portion of Pennsylvania Traversed by the Surveys for a continuous Rail Road from Harrisburg to Pittsburgh. Made under the Direction of Charles L. Schlatter, C.E. in the year 1839 and 1840. Drawn by Charles Cramer. Lithographed by J. T. Bowen, No. 94, Walnut St., Philadelphia. Shows: R.R. and Canals in operation. 4 sections

BOX 27 1826-1833:

a' No. 27 Plan of Hollidaysburg and Gaysport, n.d. Shows: Pa. Canal Connections: Basin, Upper Basin at Gaysport Boat Slips, Allegheny Portage Railroad. 1 section

BOX 33 1810-1855:

Index (names only)
Index and summaries of Deeds

Deeds from property-holders and administrators to the Commonwealth or the Board of Canal Commissioners for lots along several divisions of the Pennsylvania Canal. For surveys of lock house lots, see W2-A26. 127 laminated sections, *plus* 13 parchment items.

BOX 37 1828-1857:

Index
Index and summaries

Deeds from Property-holders and administrators to the Commonwealth or the Board of Commissioners for lots along several divisions of the Pennsylvania Canal, 1828-1857. For Surveys of lock house lots see W2-a.26.

BOX 38 1826-1851:

Index

Tables of Contracts for many lines and divisions of the Pennsylvania Canal, showing number of sections, names of contractors, slope walls, grubbing, puddling, shaping road, etc.

Juniata Line, Mouth of Juniata to Lewistown, n.d. 2 sections

Juniata Line, Lewistown to Huntingdon, n.d. 3 sections

Rough Plan of the Survey and Levels of the head waters of the Juniata, the Allegheny Mountain, the waters of the Connemaugh &c (N.S. Roberts, 1828). Shows: Route of Survey & levels, Feeder Lines, Turnpike, Roads, Proposed Basins. 1 section

BOX 40 MISSING

New Topographical Atlas of the State of Pennsylvania...1872 Title page only. 2 sections

BOX 43 1826-1859:

Elevation of an Arch of the Viaduct at Hollidaysburg on the oblique face, n.d. 1 section

Plan of the West Abutment of the Hollidaysburg Viaduct, n.d. 1 section

BOX 44 1841:

b. Maps, Surveys and Notes on Juniata Division Canal, 1841. Resolution and Report to E.B. Hubley, Pres. of canal Board, dated "Engineers Office, Hollidaysburg, Dec. 20th 1841." 5 sections, 10 x 8 each.

Dam above Smucker's, n.d. Shows: Dam, Lock, Proposed Races Nos. 1 & 2. 2 sections, 10 x 8 each.

Smucker's Dam, n.d. Shows: Head Race, Forge, Saw Mill, Gauge Weir, Lock, Pier Head, Towing Path, Road. 2 sections, 8 x 10 each.

Potter's Dam, n.d. Shows: Proposed Races Nos. 1-3, Lock. 2 sections., 8 x 10 each.

Willow Dam, n.d. Shows: Lock, Proposed Race, Canal. 2 sections, 8 x 10 each.

Dam above Waterstreet, n.d. Shows: Proposed Race, Canal, Pool. 2 sections, 8 x 10 each.

Water Street Dam, n.d. Shows: Lock, Berm bank, Proposed Race, Towing Path, Bridge, Turnpike. 2 sections, 8 x 10 each.

Locks at Alexandria, n.d. Shows: Locks, Proposed Race, Basin. 2 sections, 8 x 10 each.

Petersburg Dam, n.d. Shows: Lock, Pool. 2 sections, 8 x 10 each.

Piper's Dam, n.d. Shows:Proposed Race, Lock. 2 sections, 8 x 10 each.

Huntingdon Dam, n.d. Shows: Proposed Race, Lock, Road to Petersburg. 2 sections, 8 x 10 each.

Locks above Huntingdon, n.d. Shows: Basin, Mill Race, Proposed Race. 2 sections, 8 x 10 each.

Dam at Raystown Branch, n.d. Shows: Proposed Race, Canal Feeder, Lock Guard. 2 sections, 8 x 10 each.

Locks at Newton, n.d. Shows: Proposed Race,, Basin. 2 sections, 8 x 10 each.

Aughwick Dam, n.d. Shows: Proposed Race, Locks and Canal. 2 sections, 8 x 10 each.

Waynesburg Lock, n.d. Shows: Turnpike, Bridge, Proposed Race, Forge, Toll House. 2 sections, 8 x 10 each.

Three Locks, n.d. Shows: Basin, Proposed Race. 2 sections, 8 x 10 each.

Lewistown Dam, n.d. Shows: Pier, Towing Path, Feeder, Lock, Turnpike, Proposed Race. 2 sections, 8 x 10 each.

Norths Island Dam, n.d. Shows: Proposed Race, Lock, Towing Path. 2 sections, 8 x 10 each.

Table, Name and Locality, n.d. Shows: Total Height, Length of Canal Feeder, Comparison with Smucker's Dam, Comparison with Petersburg Dam. 2 sections, 8 x 10 each.

PART II

WESTERN DIVISION

BOX 4 1829-1866:

d. Profiles. Profiles of the summits of Eastern and Western Routes. Lockage of Eastern and Western Routes. Drawn by Edward Thierry, Eng. & Draftsman. November 1836. 4 sections

i. Dam and Sluice for Western Reservoir, William E. Morris, Civil Engineer. Exhibited at Letting, March 10th 1846. 2 sections

o. Map of the Western Reservoir for Pennsylvania Canal, Cambria County, Pennsylvania, 1853. R.S. Alexander. 4 sections

BOX 5 1828:

b.7 Profile of the Harrisburg and Pittsburgh Rail Road. Conemaugh Route as Surveyed under the Direction of Charles L. Schlatter. S. Moylan Fox, Principal Assistant, 1840. Shows: Portage Rail Road. 16 sections

b.8 Conemaugh Route No. 4. (Harrisburg & Pittsburgh Rail Road. To near Bolivar). Shows: Lockport, Mill Dam, Penna. Canal, Centreville, Roger's Mill. 4 sections

b.9 Conemaugh Route No. 5. (Harrisburg & Pittsburgh Rail Road. From Bolivar to Junction with the Middle Route). Shows: Penna. Canal, Blairsville, Old Saw Mill, Dams No. 1 & 2. 4 sections

BOX 9 1826:

Map and Profile of the Proposed Route For a Railway & Canal From the Head of Juniata Canal to the Head of Kiskiminitas Feeder. Surveyed 1826 by G.P. Olmsted, Assistant Engineer. 2 sections

From Head of Kiskiminetas Feeder, 64 miles to Great Falls, 60 miles, n.d. 2 sections

From Great Falls, 60 miles to Roaring Run, 55 miles, n.d. Shows: Salt Works, Tavern. 2 sections

From Roaring Run, 55 miles to Loyalhanna Creek, 50 miles, n.d. Shows: Church, Saw Mill, Ferry. 2 sections

From Saltsburg, 50 miles to Old Salt Works, 46 miles, n.d. Shows: Salt deposits. 2 sections

From Old Salt Works, 46 miles to Altman's Run, 38 miles, n.d. Shows: Saw Mill. 2 sections

From Altman's Run, 38 miles to Black Lick Creek, 34 miles, n.d. Shows: Dam, Newport, Saw Mill. 2 sections

From Black Lick Creek, 34 miles to beyond Blairsville, 30 miles, n.d. 2 sections

From Moorheads, 30 miles to beyond Tom's Run, 26 miles, n.d. Shows: Saw Mill. 2 sections

From beyond Tom's Run, 26 miles to Chestnut Ridge beyond Roaring Run, 22 miles, n.d. 2 sections

From Tub Mill Run, 22 miles to beyond Reeds, 16 miles, n.d. Shows: Old Forge, Richard's Falls, Horse Shoe Bottoms. 2 sections

From beyond Reed's, 16 miles to beyond Spruce Run, 12 miles, n.d. 2 sections

From beyond Spruce Run, 12 miles to Findley's Run, 8 miles, n.d. 2 sections

From Cedar Rock, 8 miles over Laurel Hill to 4 miles, n.d. 2 sections

From Laurel Hill, 4 miles to Johnstown, 1 mile, n.d. Shows: Lock No. 1, Saw Mill, Feeder. 2 sections

From beyond Johnstown to below Lick Hollow, n.d. 2 sections

From before and beyond the South Branch of the Conemaugh, n.d. 2 sections

From Croyl's Mill to beyond Mountain Branch of the Conemaugh, 2 sections

From Trout Run to beyond Ben's Creek, n.d. 2 sections

From Summit of Alleghenies to Bob's Creek, n.d. 2 sections

Along north and south branches of Poplar Run, n.d. 2 sections

From Dicky's to Newry, n.d. 2 sections

From beyond Newry to Head of Juniata Run, n.d. 2 sections

BOX 18 1836-1846:

Index, 1 sheet

a. Map of the Ligonier Line of Canal, Western Division, n.d. 7 sections

1. From 74 miles to beyond 76 miles, n.d. 7 sections
2. From 77 miles to 80 miles, n.d. Shows: Dams No. 1 & 2, Lock No. 6. 1 section
3. From 80 miles past Bolivar to beyond 83 miles, n.d. Shows: Locks No. 7-12. Saw Mill. 1 section
4. From 84 miles, Lockport to 89 miles, n.d. Shows: Locks No. 13-18. 1 section

5. From 90 miles to 93 miles, n.d. Shows: Locks No. 19-22. 1 section

6. From 94 miles to 98 miles, n.d. Shows: Locks No. 23 & 24, Dams No. 3 & 4. 1 section

7. 99 miles to Harrisport, n.d. Shows: Locks No. 25-27, Saw Mill. 1 section

b. Map of the Allegheny Line of Canal, Western Division, n.d. 8 sections

1. From Pittsburgh, 1 mile to 2 miles, n.d. Shows: Lock No.4, Culvert. 1 section

2. From Bridgport, 2 miles to 5 miles, n.d. Shows: Lock No. 5, Aqueduct. 1 section

3. From 5 miles to beyond 9 miles, n.d. Shows: Safety Gate, Aqueduct. 1 section

4. From 10 miles past Brewster's Island, to 13 miles, n.d. Shows: Culvert Waste Gate, Aqueduct, Lock No. 6. 1 section

5. From before 13 miles at Dennys' to 17 miles, n.d. Shows: Culverts. 1 section

6. From 18 miles to 21 miles, n.d. Shows: Culverts,Bridges, Aqueduct, Locks No. 6 & 8. 1 section

7. From Lock No. 9, 22 miles to beyond 23 miles, n.d. Shows: Bridges, Culverts. 1 section

8. From 24 miles to 27 miles, n.d. Shows: Basin, Culvert. 1 section

c. Lift Lock VIII Ft, n.d. Shows: Elevation, Plan, Section at Head, Section at Chamber, Section at Breast. 1 section

d. No. 2 Plan of Sluice or Feeder, n.d. 2 sections

e. No. 2 Plan of Dam or Overfall, n.d. 1 section

f. Map and Profile of Conemaugh River Near Saltsburg. Shewing the fall, width, and amount of obstruction of stream alleged to have caused, at the flood of Feb. 9th 1832, the destruction of Salt Owned by Barker, Royer, Arts & Dobbins. By John White, Engineer, 1840. Shows: Canal, Royer's Salt Works, Arts & Dobbin's Salt Works, Barker's Salt Works. 2 sections

l. Sketch of Proposed Extension of Canal at Head of the Tunnel Slack Water, Western Division Pennsylvania Canal, July 1840. Shows: Estimated Cost of moving locks, Proposed Canal, Proposed Outlets, Present Outlets. 1 section

n. Map and Profile of the Conemaugh River showing Dams, Locks and Estimate for Sections No. 1, 6, 12, 17, n.d. 4 sections

BOX 19 1824-1840:

i. Plan and Profile of the Allegheny Mountain between the head waters of Blair's Creek, a branch of the Juniata, and the mountain branch of the Conemaugh with the proposed Tunnel Line connecting the two streams; and the Reservoir and Feeders. State of Pennsylvania, 1824. Jacob Holgate, Charles Treziyulny, James Clarke, Commissioners. Delineated by Charles Treziyulny. Shows: Tunnel Line, Routes of the Level and Survey, Routes of Feeders to Tunnel, Roads. 2 sections

BOX 21 1826, 1839-1840:

Index, 1 sheet

a. Map, Profile and Estimates for grubbing, of the Kiskiminetas and Conemaugh Line, Sections No. 27 to No. 52, n.d. 4 sections

No.1 From Section No. 27 to No. 31, n.d. Shows: Lock No. 16, 1 section

No.2 From Section No. 32 to No. 36, n.d. Shows: Locks No. 17 to 20. 1 section

No.3 From Section No. 37 to No. 41, n.d. Shows: Lock No. 21. 1 section

No.4 From Section No. 48 to No. 52, n.d. Shows: Dam No. 3, Guard Lock No. 3, Findlay's Island. 1 section

b. Map and Profile of the East and West Lines for a Canal entering Pittsburgh, n.d. Attributed to N.S. Roberts, c.1826. 1 section, No. 15.

c. Inadvertently not listed here.

d. Map of the Kiskiminetas and Conemaugh Rivers (Lines), n.d. 9 sections

No.1 From 33 miles to beyond 36 miles, n.d. Shows: Dam No. 1, Culverts, Bridges, Slack Water Navigation. 1 section

No.2 From 37 miles to beyond 42 miles, n.d. Shows: Warren, Locks No. 1-3, Culverts. 1 section

No.3 From 43 miles to 46 miles, n.d. Shows: Dam No. 2, Lock No. 4. 1 section

No.4 From 47 miles to 51 miles, n.d. Shows: Dam No. 3. 1 section

No.5 From 52 miles to Saltsburg, n.d. Shows: Ferry, Locks No. 5-8, Waste Gate. 1 section

No.6 From 56 miles to 60 miles, n.d. Shows: Lock No. 9, Culvert, Waste Gate, Aqueduct. 1 section

No.7 From 61 miles to 67 miles, n.d. Shows: Locks No. 10-13, Aqueduct, Tunnel No. 4, Hydraulic Lime Factory, Culverts, Bridges, Livermore. 1 section

No.8 From 68 miles to 72 miles, n.d. Shows: Locks No. 14-17, Campbell's Mill, Waste Weir, Dam No. 5. 1 section

No.9 From Dam No. 5 to 74 miles, n.d. Shows: Blairsville, Hydraulic Lime Factory. 1 section

BOX 29 1826:

Map and Profile of the Allegheny River from French Creek to the Kiskiminetas, 1826, by James Geddes.

From Kiskiminetas to Kittanning, n.d. Shows: Locks No. 24-26. Section 5

BOX 31 1828:

A Map and Profile For a Canal Line or Slack Water Navigation Along the Allegheny River From French Creek to Kiskiminitas as Examined in 1828, By Edward F. Gay, Engineer. 2 sections

No. XX From 90 miles to 93 miles, n.d. Shows: Dams No. 21-22, Locks No. 32-33, Allegheny Canal, Ferry, Salt Well, Kiskiminetas Canal, Aqueduct. 2 sections

BOX 33 1810-1855:

Index (names only)
Index and summaries of Deeds

Deeds from property-holders and administrators to the Commonwealth or the Board of Canal Commissioners for lots along several divisions of the Pennsylvania Canal. For surveys of lock house lots, see: W2-A26. 127 laminated sections, plus 13 parchment items.

BOX 37 1828-1857:

Index
Index and summaries

Deeds from Property-holders and administrators to the Commonwealth or the Board of Commissioners for lots along several divisions of the Pennsylvania Canal, 1828-1857. For Surveys of lock house lots see: W2-a.26.

BOX 38 1826-1851:

Index

Tables of Contracts for many lines and divisions of the Pennsylvania Canal, showing number of sections, names of contractors, slope walls, grubbing, puddling, shaping road, etc.

Ligonier Line, n.d. 3 sections

Allegheny. Pine Creek, Kiskiminetas & Blairsville Line. 7 sections

BOX 43 1826-1859:

List of Persons Employed on Western Division of the Pennsylvania Canal, May 27, 1830. 1 section

A Sketch of the route for the Great Canal by John Taylor from the south branch of Toby's Creek to the West Branch of the Susquehanna and to the Conemaugh, n.d.. 2 sections

Ground Plot of the Town of Sheffield on the Kiskiminetas River and Pennsylvania Canal, n.d. Shows: Penna. Canal, Towing Path, Basin, Ferry. 2 section

BOX 44 1841:

c. Maps, Surveys and Notes on Western Division Canal, 1841.

Report, n.d. 1 section, 8 x 10

Dam No. 3, n.d. Shows: Proposed Race, Locks, Pools for Dams No. 2-3. 2 sections, 8 x 10 each

Dam No. 1, n.d. Shows: Proposed Race, Lock. 2 sections, 8 x 10 each

Freeport Lock, n.d. Shows: Lock, Basin, Proposed Race, Bridge. 2 sections, 8 x 10 each.

Lock No. 9, n.d. Shows: Proposed Race, Lock. 2 sections, 8 x 10 each.

Locks No 7 & 8, n.d. Shows: Proposed Races No. 1-3, Basin, 2 sections, 8 x 10 each.

Deer Creek Lock, n.d. Shows: Proposed Race. 2 sections, 8 x 10 each.

Sharpsburg Lock, n.d. Shows: Proposed Race, Basin. 2 sections, 8 x 10 each.

Table, names of dams and locality and height, William E. Morris, n.d. 1 section, 8 x 10

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As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural and cultural resources. This includes fostering wise use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people. The department also promotes the goals of the Take Pride in America campaign by encouraging stewardship and citizen responsibility for the public lands and promoting citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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